ASTRONOMY AND ASTROPHYSICS

A European Journal

Author and Subject Index 1987 pp- 277-430

Main Journal: Vols. 171–188 Supplement Series: Vols. 67–71

Astronomy and Astrophysics A European Journal

Board of Directors

Chairman: G. Contopoulos

(Greece)

Vice Chairman: B. Hauck

(Switzerland)

H. Haupt (Austria)

A. G. Hearn

(The Netherlands)

E. Jensen (Norway)

J. Lequeux (France)

K. Mattila (Finland)

P. G. Mezger

(Germany, Federal Republic)

E. H. Schröter (Germany, Federal Republic) E. Schatzman

(France)

G. Setti (Italy)

(Italy)

P. Smeyers (Belgium)

L. Woltjer

(ESO)

Editors-in-Chief

F. Praderie

Astronomy and Astrophysics

Editorial Office

Observatoire de Meudon 92 195 Meudon Principal Cedex

72 173 IVI

Tel. (33-1) 45-07-06-30

Telex (42) 270 912

obsastr meudon

M. Grewing

Astronomy and Astrophysics

Editorial Office Keplerstrasse 17

7400 Tübingen

(Fed. Rep. of Germany) Tel. (49-7071) 29 49 82

Telex (41) 7262714 ait d

Letter-Editor

S. R. Pottasch

Kapteyn Astronomical Institute

P.O. Box 800

9700 AV Groningen

(The Netherlands) Tel (31-50) 63 40 93

Telex (44) 53 572 stars nl

Editing Secretaries

Miss B. Perche Mrs. M. Rougeot Mrs. U. Hilkes

Mrs. J. de Boer Snowden

The exclusive copyright © for all languages and countries, including the right for photomechanical and any other reproduction, also in microform, is vested in European Southern Observatory (ESO). The use of registered names, trademarks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use.

Springer International 1987

Printed in Germany

Printers: Brühlsche Universitätsdruckerei, Giessen

Annual Author-Title Index

Astronomy and Astrophysics, Volumes 171-188 (1987)

Supplement Series, Volumes 67-71 (1987)

Volume and page numbers of articles published in the Supplement Series are printed in italics

Abergel, A., Bertaux, J.L.: Evolution of comet P/Halley in early March 1986 as observed from Vega pictures 187, 829

Aboudarham, J., Hénoux, J.C.: Non-thermal excitation and ionization of hydrogen in solar flares. II. Effects on the temperature minimum region: energy balance and white light flares 174, 270

Achterberg, A.: A numerical study of steady-state shock acceleration 174, 329

Acker, A., Chopinet, M., Pottasch, S.R., Stenholm, B.: Misclassified planetary nebulae 186, 365 (71, 163)

Acker, A., see Jasniewicz, G., et al. 180, 145

Acker, A., see Stenholm, B. 176, 189 (68, 51)

Acosta, J.A., see Kidger, M.R., et al. 187, 363

Acuña, M.H., see Glaßmeier, K.H., et al. 187, 65

Acuña, M., see Johnstone, A.D., et al. 187, 47

Adelman, S.J.: Optical region elemental abundance analyses of B and A stars. VI. The normal stars HR 6559 (A7 IV) and η Leporis (F0 IV) 173, 420 (67, 353)

Adelman, S.J., see Kocer, D., et al. 182, 360 (70, 49)

Adlhoch, J., see Kühr, H., et al. 188, 272 (71, 493)

Afonin, V.V., see Curtis, C.C., et al. 187, 360

Afonin, V.V., see Hsieh, K.C., et al. 187, 375

Agniel, C., see Fehrenbach, C., et al. 177, 352 (68, 515)

Agniel, C., see Fehrenbach, C., et al. 186, 366 (71, 185)

A'Hearn, M.F., see Feldman, P.D., et al. 187, 325

A'Hearn, M.F., see McFadden, L.A., et al. 187, 333

Aikawa, T., Antonello, E., Simon, N.R.: Hydrodynamic models for the short-period, classical Cepheid, SU Cas 181, 25

Ajmanov, A.K., see Shcheglov, P.V., et al. 173, 383

Alamanni, N., see Cavallini, F., et al. 173, 161

Albers, H., MacGillivray, H.T., Beard, S.M., Chromey, F.R.: Detection of shell-like features in the north-eastern halo of the Small Magellanic Cloud 182, L8

Albinson, J.S., see Higgs, L.A., et al. 181, 351

Albrecht, M.A., Kegel, W.H.: The formation of interstellar molecular lines in a turbulent velocity field with finite correlation length 176, 317

Alecian, G., Artru, M.-C.: The diffusion of gallium in mainsequence peculiar stars 186, 223

Alef, W., see Götz, M.M.A., et al. 176, 171

Alexander, W.M., see McDonnell, J.A.M., et al. 187, 719

Alissandrakis, C.E., Dialetis, D., Tsiropoula, G.: Determination of the mean lifetime of solar features from photographic observations 174, 275

Allamandola, L.J., see Bregman, J.D., et al. 187, 616

Allen, D.A., see Shore, S.N., et al. 176, 59

Allen, M., Delitsky, M., Huntress, W., Yung, Y., Ip, W.-H.,
 Schwenn, R., Rosenbauer, H., Shelley, E., Balsiger, H., Geiss,
 J.: Evidence for methane and ammonia in the coma of comet
 P/Halley 187, 502

Allen, S.L., see Finkenthal, M., et al. 184, 337

Aller, H.D., see Padrielli, L., et al. 173, 215 (67, 63)

Aller, M.F., see Padrielli, L., et al. 173, 215 (67, 63)

Alloin, D., see Bica, E. 181, 270

Alloin, D., see Bica, E. 183, 188 (70, 281)

Alloin, D., see Bica, E. 186, 49

Alloin, D., see Danziger, I.J., et al. 177, L13

Alloin, D., see Pelat, D., et al. 182, 9

Alpar, A., Ögelman, H.: Neutron star precession and the dynamics of the superfluid interior 185, 196

Alpar, A., Brinkmann, W., Kızıloglu, Ü., Ögelman, H., Pines, D.: A search for X-ray emission from a nearby pulsar: PSR 1929+10 177, 101

Alphenaar, P., see Van Leeuwen, F., et al. 175, 359 (67, 483)

Altenhoff, W.J., Baars, J.W.M., Downes, D., Wink, J.E.: Observations of anomalous refraction at radio wavelengths 184, 381

Altschuler, D.R., Davis, M.M., Giovanardi, C.: A search for diffuse neutral hydrogen in filaments of galaxies 178, 16

Altschuler, D.R., Giovanardi, C., Pantoja, C.A.: A continuum survey of dwarf galaxies at 1400 MHz, II 177, 22

Altschuler, D.R., see Forkert, T. 182, 361 (70, 77)

Altwegg, K., see Balsiger, H., et al. 187, 163

Altwegg, K., see Neugebauer, M., et al. 187, 21

Alvarez, H., Aparici, J., May, J.: The Large Magellanic Cloud at 45 MHz: a symmetric but warped galaxy 176, 25

Alvarez, P.P., see Chlewicki, G., et al. 173, 131

Amata, E., see Coates, A.J., et al. 187, 55

Amata, E., see Johnstone, A.D., et al. 187, 25

Amata, E., see Thomsen, M.F., et al. 187, 141

Amata, E., see Wilken, B., et al. 187, 153

Andersen, J., Vaz, L.P.R.: Erratum: Absolute dimensions of eclipsing binaries. III. KW Hydrae: a detached Am system with unequal components 175, 355

Andersen, J., Clausen, J.V., Nordström, B.: Absolute dimensions of eclipsing binaries. XII. TZ Mensae 175, 60

Andersen, J., Garcia, J.M., Giménez, A., Nordström, B.: Absolute dimensions of eclipsing binaries. X. V 1143 Cygni 174,

Andersen, J., Nordström, B., Jensen, K.S.: Radial velocities of bright southern stars. VI. Standard and reference stars 1983– 1986 176, 196 (68, 347)

Andersen, J., see Grønbech, B., et al. 176, 195 (68, 323)

Andersen, J., see Grønbech, B., et al. 176, 196 (68, 331)

Andersen, J., see Maurice, E., et al. 175, 358 (67, 423)

Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Rème, H., Sauvaud, J.A., d'Uston, C., Korth, A., Richter, A.K., Mendis, D.A.: The upstream region, foreshock and bow shock wave at comet P/Halley from plasma electron measurements 187, 290

Anderson, K.A., see d'Uston, C., et al. 187, 137

Anderson, K.A., see Korth, A., et al. 187, 149

Anderson, K.A., see Rème, H., et al. 187, 33

Anderssen, R.S., see Koch, I. 183, 170

Andersson, M., see Matthews, N., et al. 184, 284

Andreani, P., see Vidal-Madjar, A., et al. 177, L17

Andreasen, G.K.: Cepheids in the Magellanic Clouds. II. Search

for double mode Cepheids in the LMC 186, 159

Andreasen, G.K., Petersen, J.O.: Cepheids in the Magellanic Clouds. I. Fourier decomposition of LMC Cepheid light

curves 180, 129 Andreasen, G.K., see Petersen, J.O. 176, 183

Andrews, A.D., see Butler, C.J., et al. 174, 139

Andrews, A.D., see Rodonò, M., et al. 176, 267

Andrillat, Y., Houziaux, L.: Further observations of PW Vulpeculae 173, 217 (67, 111)

Andronico, G., Baratta, G.A., Spinella, F., Strazzulla, G.: Optical evolution of laboratory-produced organics: applications to Phoebe, Iapetus, outer belt asteroids and cometary nuclei 184, 333

Angebault, L.P., see Ilovaisky, S.A., et al. 179, L1

Anglada, G., Rodríguez, L.F., Cantó, J., Estalella, R., López, R.: The spectral hallmark of a contracting protostellar fragment 186, 280

Anglada, G., see Torrelles, J.M., et al. 177, 171

Aniol, R., see Bruch, A., et al. 185, 203

Anisimov, S., see Smirnov, V.N., et al. 187, 774

Ansari, S.G.: An extension to the wavelength coincidence statistics for spectral line identification 181, 328

Antia, H.M., see Apparao, K.M.V., et al. 177, 198

Antia, H.M., see Ray, A., et al. 184, 164

Antonelli, P., see Chapellier, E., et al. 176, 255

Antonello, E., Broglia, P., Conconi, P., Mantegazza, L.: The Fourier coefficients derived from the decomposition of pulsating star light curves 171, 131

Antonello, E., see Aikawa, T., et al. 181, 25

Antonello, E., see Breger, M., et al. 175, 117

Antonello, E., see Poretti, E., et al. 178, 328 (69, 335)

Antonello, E., see Poretti, E., et al. 181, 273

Antonopoulou, E.: Infrared photometry of the RS CVn binaries. V. The southern sytems HD 5303 and AD Cap 177, 352 (68, 521)

Antonopoulou, E., Pottasch, S.R.: IRAS measurements of H_{II} regions 173, 108

Antonucci, E., Dodero, M.A., Gabriel, A.H., Tanaka, K., Dubau, J.: Ionization balance for iron xxv, xxiv and xxiii derived from solar flare X-ray spectra 180, 263

Antonucci, E., Marocchi, D., Gabriel, A.H., Doschek, G.A.: Calcium ionization balance and argon/calcium abundance in solar flares 188, 159

Anzer, U., Börner, G., Meyer-Hofmeister, E.: The influence of external magnetic fields on the structure of thin accretion disks 188, 85

Anzer, U., Börner, G., Monaghan, J.J.: Numerical studies of wind accretion 176, 235

Anzer, U., see Börner, G., et al. 182, 63

Aoki, T., see Saito, T., et al. 187, 201

Aparici, J., see Alvarez, H., et al. 176, 25

Aparicio, A., García-Pelayo, J.M., Moles, M., Melnick, J.: CCD photometry of resolved dwarf irregular galaxies. I. Sextans A 188, 267 (71, 297)

Apáthy, I., see Gringauz, K.I., et al. 187, 191

Apáthy, I., see Gringauz, K.I., et al. 187, 287

Apáthy, I., see Verigin, M.I., et al. 187, 121

Apparao, K.M.V., Antia, H.M., Chitre, S.M.: Rapidly rotating stars and the Be star phenomenon 177, 198

Appenzeller, I., Münch, G.: Rotational structure of the (2,0)Phillips band of C_2 in comet P/Halley 187, 465

Aptekar, R.L., see Mazets, E.P., et al. 187, 699

Aragón, A., Gorgas, J., Rego, M.: An interpretation of the linestrength indices in old stellar populations using an evolutionary synthesis approach 185, 97

Arai, K., Hashimoto, M., Fukui, T.: Primordial nucleosynthesis in the Brans-Dicke theory with a variable cosmological term 179, 17

Ardeberg, A., Lindgren, H.: A photoelectric *UBV* sequence in SA 184 173, 216 (67, 103)

Ardeberg, A., see Lindgren, H., et al. 188, 39

Ardeberg, A., see Maurice, E., et al. 175, 358 (67, 423)

Arévalo, M.J., see Bedford, D.K., et al. 182, 264

Arévalo, M.J., see Lázaro, C., et al. 187, 605

Argyle, R.W., see Reid, N., et al. 188, 269 (71, 397)

Arimoto, N., Yoshii, Y.: Chemical and photometric properties of a galactic wind model for elliptical galaxies 173, 23

Arimoto, N., see Yoshii, Y. 188, 13

Arlot, J.-E., see Fairhead, L., et al. 176, 190 (68, 81)

Armand, N.A., Efimov, A.I., Yakovlev, O.I.: A model of the solar wind turbulence from radio occultation experiments 183, 135

Arnal, E.M., Cersosimo, J.C., May, J., Bronfman, L.: Ara OB1: A stellar association formed by the action of an energetic event? 174, 78

Arnaud, J., Newkirk G, Jr.: Mean properties of the polarization of the Fexili 10747 Å coronal emission line 178, 263

Arnaud, J., see Le Borgne, J.F., et al. 173, 180

Arnaud, J., see Le Borgne, J.F., et al. 187, 526

Arnaud, K.A., see van Paradijs, J., et al. 182, 47

Arpigny, C., Magain, P., Manfroid, J., Dossin, F., Danks, A.C., Lambert, D.L.: Resolution of the [O₁]+NH₂ blend in comet P/Halley 187, 485

Arpigny, C., see Feldman, P.D., et al. 187, 325

Arpigny, C., see Keller, H.U., et al. 187, 807

Arpigny, C., see Sterken, C., et al. 187, 523

Arquilla, R., Kwok, S.: CO observations of IRAS Circular No.9 sources 19520+2759 and 01133+6434: regions of star formation 173, 271

Arribas, S., Martinez Roger, C.: Application of the infrared flux method to globular cluster stars. The M3 giant branch 178, 106

Arribas, S., Martinez Roger, C.: Infrared observations of metaldeficient stars 185, 354 (70, 303)

Artru, M.-C., Lanz, T.: Silicon absorption in UV spectra of ApSi stars 182, 273

Artru, M.-C., see Alecian, G. 186, 223

Artzner, G.: Astronomical optics: zonal aberration correction.

Laboratory experiments and extrapolations to space- and ground-based observations 175, 345

Aslan, Z., Derman, E., Engin, S., Yilmaz, N.: *BV* photometry of β Lyrae in 1979 and 1981 **188**, 274 (71, 597)

Athanassoula, E., Bosma, A., Papaioannou, S.: Halo parameters of spiral galaxies 179, 23

Atteia, J.-L., see Hudec, R., et al. 175, 71

Aubier, M.G., see Genova, F. 177, 303

Audaire, L., see Monin, J.L., et al. 172, 368

Audouze, J., see Delbourgo-Salvador, P., et al. 174, 365

Audouze, J., see Salati, P., et al. 173, 1

Augarde, R., Figon, P., Kunth, D., Sèvre, F.: Spectroscopic survey of the Case blue and emission line galaxies
 185, 4
 Augusteijn, T., see van Paradijs, J., et al.
 184, 201

Aumann, H.H., see Waters, L.B.F.M., et al. 172, 225

Aurière, M., see Ilovaisky, S.A., et al. 179, L1

Aurière, M., see Koch-Miramond, L. 183, 1

Avanesov, G.A., see Sagdeev, R.Z., et al. 187, 835

Avanesova, G., see Savin, S., et al. 187, 89

Avery, L.W., see Richardson, K.J., et al. 174, 197

Avgoloupis, S., see Mavridis, L.N. 188, 95

Azzopardi, M.: Small Magellanic Cloud: Hy-line equivalent widths and luminosity classes of the brightest blue star members 180, 279 (69, 421)

Azzopardi, M., see Lequeux, J., et al. 173, 218 (67, 169)

ex

es

he

1:

ic

n

et

9

of

d

y

S

c

Baade, D., Lucy, L.B.: A search for coronal line emission from early-type stars. I. ζ Puppis 178, 213

Baade, D., Weiss, W.W.: Computed spectral line variations of oblique non-radial pulsators 173, 217 (67, 147)

Baan, W.A., see Henkel, C., et al. 185, 14

Baars, J.W.M., Wendker, H.J.: The extended radio emission of PCygni 181, 210

Baars, J.W.M., Hooghoudt, B.G., Mezger, P.G., de Jonge, M.J.: The IRAM 30-m millimeter radio telescope on Pico Veleta, Spain 175, 319

Baars, J.W.M., see Altenhoff, W.J., et al. 184, 381

Baath, L., see Tang, G., et al. 185, 87

Babel, J., Burki, G.: The pulsation modes of CO Aur 181, 34

Babel, J., see Cristiani, S., et al. 177, L5

Babu, G.S.D., see Sivaraman, K.R., et al. 187, 543

Bachiller, R., Cernicharo, J.: Erratum: The relation between carbon monoxide emission and visual extinction in the local Perseus dark clouds 174, 368

Bachiller, R., Cernicharo, J., Goldsmith, P., Omont, A.: The vicinity of Omicron Per 185, 297

Bachiller, R., Guilloteau, S., Kahane, C.: Clumps in IC 348: temperature and density profiles of dense cores 173, 324

Badhwar, G.D., see Golden, R.L., et al. 188, 145

Baier, G., Weigelt, G.: Speckle interferometric observations of Pluto and its moon Charon on seven different nights 174, 295

Baiesi Pillastrini, G.C., see Vettolani, G. 175, 9

Baiesi-Pillastrini, G.C.: Central velocity gradients and the classification of spiral galaxies 172, 375

Baize, P.: Orbital elements of 26 double stars 186, 365 (71, 177)

Baker, N.H., Kuhfuß, R.: Roxburgh's criterion for convective overshooting 185, 117

Balikhin, M., see Savin, S., ct al. 187, 89

Balkowski, C., see Chamaraux, P., et al. 178, 326 (69, 261)

Balkowski, C., see Fontanelli, P., et al. 181, 217

Balkowski, C., see Talavera, A., et al. 178, 328 (69, 331)

Ballereau, D., Chauville, J.: Long-term and mid-term spectroscopic variations of the Be-shell star HD 184279 (V1294 Aql).
I. Observational data 183, 186 (70, 229)

Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J.: The short-period photometric variability of four Be stars 181, 11 (71, 11)

Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zick-graf, F.-J.: The short-period photometric variability of four Be stars 186, 361 (71, 11)

Balsiger, H., Altwegg, K., Bühler, F., Fuselier, S.A., Geiss, J.,
Goldstein, B.E., Goldstein, R., Huntress, W.T., Ip, W.-H.,
Lazarus, A.J., Meier, A., Neugebauer, M., Rettenmund, U.,
Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E.,
Young, D.T.: The composition and dynamics of cometary
ions in the outer coma of comet P/Halley 187, 163

Balsiger, H., see Allen, M., et al. 187, 502

Balsiger, H., see Goldstein, B.E., et al. 187, 174

Balsiger, H., see Goldstein, R., et al. 187, 220

Balsiger, H., see Ip, W.-H., et al. 187, 132

Balsiger, H., see Neugebauer, M., et al. 187, 21

Balsiger, H., see Schwenn, R., et al. 187, 160

Balsiger, H., see Shelley, E.G., et al. 187, 304

Balthasar, H., Stark, D., Wöhl, H.: The solar rotation elements i and Ω derived from recurrent single sunspots 174, 359

Bame, S.J., see Brosius, J.W., et al. 187, 267

Bame, S.J., see Sanderson, T.R., et al. 187, 125

Bao, Men.-Xien., see Xie, Guang.-Zhong., et al. 173, 214 (67,

Barat, C., see Hudec, R., et al. 175, 71

Baratta, G.A., see Andronico, G., et al. 184, 333

Barbanis, B., see Contopoulos, G., et al. 172, 55

Barbieri, C., Cristiani, S., Iovino, A., Nota, A.: Quasar candidates in the field of SA 94. II. Objective-prism classification of the US objects 175, 361 (67, 551)

Barbieri, C., Kranje, A., Scardia, M.: Astrometric positions of comet Giacobini-Zinner in 1985 175, 360 (67, 507)

Barbieri, C., Kranjc, A., Scardia, M., Cremonese, G.: Astrometric positions of comet P/Halley 187, 893

Barbieri, C., see Keller, H.U., et al. 187, 807

Barbuy, B.: Magnesium isotopes in super-metal-rich stars 172, 251

Barbuy, B., Spite, F., Spite, M.: Magnesium isotopes in metalpoor and metal-rich stars 178, 199

Bardin, C., see Maurice, E., et al. 175, 358 (67, 423)

Barnett, E., see McKeith, C.D., et al. 173, 204

Baron, Y., de Muizon, M., Papoular, R., Pégourié, B.: An analysis of the emission features of the IRAS low-resolution spectra of carbon stars 186, 271

Barr, P., White, N.E., Haberl, F., Stella, L., Pollard, G., Gottwald, M., Parmar, A.N.: EXOSAT observations of the 1983 outburst of the Rapid Burster: a new mode of behaviour 176, 69

Barral, J.F., see Torrelles, J.M., et al. 177, 171

Barranco, M., see Vinas, X., et al. 182, L34

Barrow, C.H., see Genova, F., et al. 182, 159

Barwig, H., Schoembs, R., Buckenmayer, C.: A multichannel multicolour photometer for high time resolution 175, 327

Barwig, H., see Cristiani, S., et al. 177, L5

Barwig, H., see Schoembs, R., et al. 181, 50

Barylak, M., see Panagia, N., et al. 177, L25

Barylak, M., see Wamsteker, W., et al. 177, L21

Baryshnikova, Y., Ruzmaikin, A., Sokoloff IV, D.D., Shukurov, A.: Generation of large-scale magnetic fields in spiral galaxies 177, 27

Basso, L., see Santagata, N., et al. 183, 185 (70, 189)

Basso, L., see Santagata, N., et al. 183, 186 (70, 191)

Bates, B., see McKeith, C.D., et al. 173, 204

Batrla, W., see Higgs, L.A., et al. 181, 351

Battaner, E., see Sanchez-Lavega, A. 185, 315

Battistini, P., Bònoli, F., Braccesi, A., Federici, L., Fusi Pecci, F., Marano, B., Börngen, F.: Search for (globular) clusters in M31. IV. Candidates in a 3° × 3° square field centred on M31 175, 358 (67, 447)

Baudry, A., see Jacq, T., et al. 173, 347

Baumbaugh, A.E., see Rettig, T.W., et al. 187, 249

Baumbaugh, B., see Rettig, T.W., et al. 187, 249

Baumgärtel, K., Sauer, K.: Fluid simulation of comet P/Halley's ionosphere 187, 307

Beard, S.M., see Albers, H., et al. 182, L8

Beard, S.M., see Parker, Q.A., et al. 173, L5

Beck, R., Klein, U., Wielebinski, R.: The magnetic field in M 51

Beck, R., see Buczilowski, U.R. 176, 192 (68, 171)

Beckman, J.E., see Crivellari, L., et al. 174, 127

Beckman, J.E., see Vladilo, G., et al. 182, L59

Beckman, J.E., see Vladilo, G., et al. 185, 233

Beckman, J., see Rebolo, R., et al. 172, L17

Beckwith, S., Natta, A.: Transfer of resonant line photons in spherically accelerating envelopes 181, 57

Bedford, D.K., Fuensalida, J.J., Arévalo, M.J.: The BVJK light curves of the short-period eclipsing binary CG Cygni 182,

Bediin, P.J.: Dust shells around Miras and OH/IR stars: interpretation of IRAS and other infrared measurements 186, 136

Beer, H., Penzhorn, R.-D.: Measurement of the neutron capture cross section of 40Ar and an s-process analysis from 34S to 42Ca 174, 323

Beghin, C., see Pedersen, A., et al. 187, 297

Béghin, C., see Mogilevsky, M., et al. 187, 80

Béghin, C., see Trotignon, J.G., et al. 187, 83

Belfort, P., Mochkovitch, R., Dennefeld, M.: Far-infrared and optical properties of starburst galaxies 176, 1

Belton, M.J.S., Spinrad, H., Wehinger, P.A., Wyckoff, S., Yeomans, D.K.: The spectral behavior of P/Halley at large heliocentric distance in light of the Giotto/Vega results 187,

Belvedere, G., Pidatella, R.M., Stix, M.: Gray's constant and "swiss cheese" and "sea serpents" in stellar convection zones 177, 183

Bender, R., Möllenhoff, C.: Morphological analysis of massive early-type galaxies in the Virgo Cluster 177, 71

Bender, R., Döbereiner, S., Möllenhoff, C.: Radio activity and the shape of elliptical galaxies 177, L53

Bender, R., see Möllenhoff, C. 174, 63

Bennett, K., see Clear, J., et al. 174, 85

Bennett, K., see Hermsen, W., et al. 175, 141

Benz, A.O., Fürst, E.: Are solar radio fluctuations real? 175, 282

Benz, A.O., see Stähli, M. 175, 271

Berezinsky, V.S., Prilutsky, O.F.: Neutrino-antineutrino annihilation around a collapsar 175, 309

Bergeat, J., see Manfroid, J., et al. 176, 180

Bergeron, J., Durret, F.: Extended ionized nebulosities in the galaxies Mk1, Mk3, Mk348 and the quasar 4C 37.43 184,

Bergeron, J., D'Odorico, S., Kunth, D.: Comprehensive study of the QSO-galaxy pair 1327-206 and the extent of low ionization galactic haloes 180, 1

Bergeron, J., see Durret, F. 173, 219

Berkhuijsen, E.M.: Properties of supernova remnants at known distances. II. The effect of ambient density on number-diameter relations 181, 398

Berkhuijsen, E.M., see Özel, M.E. 172, 378

Berriman, G.: A compilation of distances to cataclysmic variable stars 176, 189 (68, 41)

Bertaux, J.L., see Abergel, A. 187, 829

Bertaux, J.L., see Chassefière, E. 174, 239

Bertaux, J.L., see Chassefière, E. 176, 121

Bertaux, J.-L., see Langevin, Y., et al. 187, 761

Bertaux, J.L., see Moreels, G., et al. 187, 551 Berthelier, J.J., see Eberhardt, P., et al. 187, 435

Berthelier, J.J., see Eberhardt, P., et al. 187, 481

Berthelier, J.J., see Lämmerzahl, P., et al. 187, 169

Berton, R.: Determination of velocity and magnetic fields from observational data in solar active regions 175, 238

Bertout, C., Magnan, C.: Line profiles from moving spherical shells 183, 319

Bettoni, D., Buson, L.M.: A catalogue of early-type galaxies with emission lines 173, 420 (67, 341)

Beuermann, K., Thomas, H.C., Giommi, P., Tagliaferri, G.:

EXO 023432-5232.3: a new 114-minute probable AM-Herculis-type binary 175, L9

Beuermann, K., see Ögelman, H., et al. 177, 110

Beuermann, K., see van der Woerd, H., et al. 182, 219

Bhat, P.N., Gopalakrishnan, N.V., Ramana Murthy, P.V., Swaminathan, S., Vishwanath, P.R.: Search for pulsed emission of very high energy gamma rays from Geminga 171, 84

Bhat, P.N., Gupta, S.K., Ramana Murthy, P.V., Sreekantan, B.V., Tonwar, S.C., Vishwanath, P.R.: Very high energy gamma-rays from the Vela pulsar 178, 242

Bianchi, L., Grewing, M.: NGC 40: IUE observations of the nucleus 181, 85

Bianchi, L., see Skuppin, R., et al. 177, 228

Bibring, J.P., see Emerich, C., et al. 187, 839

Bibring, J.P., see Moroz, V.I., et al. 187, 513

Bica, E., Alloin, D.: Analysis of absorption-line spectra in a sample of 164 galactic nuclei 183, 188 (70, 281)

Bica, E., Alloin, D.: Near-infrared spectral properties of star clusters and galactic nuclei 186, 49

Bica, E., Alloin, D.: The metallicity versus luminosity relationship for early-type galaxies 181, 270

Bica, E., see Pelat, D., et al. 182, 9

Bien, R.: Weights of star positions in meridian circle catalogues 188, 225

Bien, R., Schubart, J.: Three characteristic orbital parameters for the Trojan group of asteroids 175, 292

Bien, R., see Schubart, J. 175, 299

Bienaymé, O., Robin, A.C., Crézé, M.: Erratum: The mass density in our Galaxy. I. A dynamical model constrained by general star counts 186, 359

Bienaymé, O., Robin, A.C., Crézé, M.: The mass density in our Galaxy. I. A dynamical model constrained by general star counts 180, 94

Biermann, P.L., Kühr, H., Snyder, W.A., Zensus, J.A.: The inverse Compton test for a large sample of compact radio sources 185, 9

Biermann, P.L., see Chini, R., et al. 181, 237

Biermann, P., see Eckart, A., et al. 173, 217 (67, 121)

Biermann, P., see Schaaf, R., et al. 174, 357

Bignell, C., see Pottasch, S.R., et al. 177, L49

Billaud, G., Boche, R., Furia, M., Meyer, C., Mignard, F., Pham-Van, J., Pochet, J.M., Vigouroux, G.: Observation results obtained with the photoelectric astrolabe at CERGA: time and latitude. March 1, 1983 - December 31, 1984 (Text in French) 176, 190 (68, 67)

Binette, L., Robinson, A.: Fossil nebulae in the context of active galaxies. I. Time evolution of a single cloud 177, 11

Birch, P.V., see Schleicher, D.G., et al. 187, 531

Bird, M.K., see Edenhofer, P., et al. 187, 712

Birkle, K., see Neckel, T., et al. 175, 231

Black, E., see Byrne, P.B., et al. 186, 261

Blackwell, D.E., Booth, A.J., Menon, S.L.R., Petford, A.D.: An LTE analysis of the solar photospheric Ti1 and Cr1 spectra: evidence for non-LTE in excitation 180, 229

Blair, D.G., see Candy, B.N. 183, L17

Blamont, J.E., see Moreels, G., et al. 187, 551

Blanch, R., see Rosselló, G., et al. 173, 217 (67, 157)

Blanchard, A., Schneider, J.: Gravitational lensing effect on the fluctuations of the cosmic background radiation 184, 1

Blazit, A., Bonneau, D., Foy, R.: Speckle interferometric measurements of binary stars. IV 186, 362 (71, 57)

Blazit, A., see Lortet, M.C., et al. 180, 111

Blecha, A., see Courvoisier, T.J.-L., et al. 176, 197

Bleszynski, S.: Filtering of the local interstellar medium at the heliopause 180, 201

Blitz, L., see Brand, J., et al. 176, 188 (68, 1)

Bloemen, J.B.G.M., see Hermsen, W., et al. 175, 141

Bloemen, J.B.G.M., see Strong, A.W., et al. 173, 418 (67, 283)

Boche, R., see Billaud, G., et al. 176, 190 (68, 67)

Bockelée-Morvan, D.: A model for the excitation of water in comets 181, 169

Bockelée-Morvan, D., Crovisier, J.: The 2.7 μm water band of comet P/Halley: interpretation of observations by an excitation model 187, 425

Bockelée-Morvan, D., Crovisier, J., Despois, D., Forveille, T., Gérard, E., Schraml, J., Thum, C.: Molecular observations of comets P/Giacobini-Zinner 1984e and P/Halley 1982i at millimetre wavelengths 180, 253

Bockelée-Morvan, D., see Gérard, E., et al. 187, 455

Bockelée-Morvan, D., see Moroz, V.I., et al. 187, 513

Bodenheimer, P., see Tenorio-Tagle, G., et al. 179, 219

Bodenheimer, P., see Tenorio-Tagle, G., et al. 182, 120

Boehnhardt, H., Fechtig, H.: Electrostatic charging and fragmentation of dust near P/Giacobini-Zinner and P/Halley 187, 824

Bogey, M., see Gerin, M., et al. 173, L1

Böhringer, H., see Ögelman, H., et al. 183, L27

Boice, D.C., see Wegmann, R., et al. 187, 339

Boischot, A., Sastri, J.H., Zarka, P.: Localization of Io and non-Io sources of Jovian decameter emission 175, 287

Boissé, P., Casoli, F., Combes, F.: High resolution ¹²CO observations of the central parts of the interacting galaxy NGC 3628 173, 229

Boisson, C., see Festou, M.C., et al. 174, 299

Bolcal, C., see Kocer, D., et al. 182, 360 (70, 49)

Bommier, V., see Landi Degl'Innocenti, E., et al. 186, 335

Bonazzola, S., Falgarone, E., Heyvaerts, J., Pérault, M., Puget, J.L.: Jeans collapse in a turbulent medium 172, 293

Bonche, P., see Lassaut, M., et al. 183, L3

Bonneau, D., see Blazit, A., et al. 186, 362 (71, 57)

Bonneau, D., see Lortet, M.C., et al. 180, 111

Bonnet, R.M., see Keller, H.U., et al. 187, 807

Bonnet-Bidaud, J.M., Mouchet, M.: The anomalous ultraviolet spectrum of the AM Her star H 0538+608 188, 89

Bonoli, C.: CCD photometry of the ring galaxy VV 32 174,

Bonoli, F., Delpino, F., Federici, L., Fusi Pecci, F.: Near-infrared photometry of globular clusters in the outer halo of M 31 185, 25

Bònoli, F., see Battistini, P., et al. 175, 358 (67, 447)

Bonometto, S.A., Pantano, O.: Neutrino flow dominance during the cosmological quark-hadron transition 176, L9

Booth, A.J., see Blackwell, D.E., et al. 180, 229

Booth, R.S., see Diamond, P.J., et al. 174, 95

Booth, R.S., see Pilbratt, G., et al. 173, 12

Borg, H., see Coates, A.J., et al. 187, 55

Borg, H., see Johnstone, A., et al. 187, 47

Borg, H., see Johnstone, A.D., et al. 187, 25

Borg, H., see Thomsen, M.F., et al. 187, 141

Borg, H., see Wilken, B., et al. 187, 153

Borghesi, A., see Bussoletti, E., et al. 183, 187 (70, 257)

Boriakoff, V., see Weisberg, J.M., et al. 186, 307

Börner, G., Hayakawa, S., Nagase, F., Anzer, U.: Disk formation at the magnetosphere of wind-fed pulsars: application to Vela X-1 182, 63'

Börner, G., see Anzer, U., et al. 176, 235

Börner, G., see Anzer, U., et al. 188, 85

Börngen, F., see Battistini, P., et al. 175, 358 (67, 447)

Bornmann, P.L., see Butler, C.J., et al. 174, 139

Borovička, J., see Hudec, R., et al. 175, 71

Bosma, A., see Athanassoula, E., et al. 179, 23

Bosma, P.B., see de Haan, J.F., et al. 183, 371

Bothun, G.D., see Skillman, E.D., et al. 185, 61

Bothun, G.D., see van der Hulst, J.M., et al. 177, 63

Bottema, R., van der Kruit, P.C., Freeman, K.C.: The stellar velocity dispersion in the disk of the spiral galaxy NGC 5170 178, 77

Bottinelli, L., Fouqué, P., Gouguenheim, L., Paturel, G., Teerikorpi, P.: Cluster population incompleteness bias and the value of H_0 from the Tully-Fischer B_1^0 relation 181, 1

Bouchet, P., Chalabaev, A., Danks, A., Encrenaz, T., Epchtein, N., Le Bertre, T.: Infrared photometry of comet P/Halley before perihelion 174, 288

Bouchet, P., Stanga, R., Le Bertre, T., Epchtein, N., Hamann, W.R., Lorenzetti, D.: Infrared photometry of SN 1987 A 177, L9

Bouchet, P., see Courvoisier, T.J.-L., et al. 176, 197

Bouchet, P., see Danks, A.C., et al. 184, 329

Bougeard, M.: Statistical detection of disturbing effects in observations. An example: visual observations with astrolabes (Text in French) 173, 191

Bougeard, M.L.: Statistical problems about the use of the ordinary least-squares method in astrometry. Application to the Paris-astrolable data 183, 156

Boulanger, F., see Gerin, M., et al. 173, L1

Boulesteix, J., Georgelin, Y.P., Lecoarer, E., Marcelin, M., Monnet, G.: Kinematics of ionized gas in the center of the Andromeda nebula (M 31) 178, 91

Boulesteix, J., see Georgelin, Y.M., et al. 174, 257

Boulesteix, J., see Laval, A., et al. 175, 199

Boulesteix, J., see Marcelin, M., et al. 179, 101

Bourdonneau, B., see Doazan, V., et al. 182, L25

Bourgois, G., see Gérard, E., et al. **187**, 455 Bowers, P.F., see de Vegt, C., et al. **179**, 322

Bowers, P.F., see Diamond, P.J., et al. 174, 95

Boydağ, S., see Fenkart, R., et al. 173, 417 (67, 245)

Boyle, R.P., see Corbally, C.J. 186, 114

Braccesi, A., see Battistini, P., et al. 175, 358 (67, 447)

Brand, J., Blitz, L., Wouterloot, J.G.A., Kerr, F.J.: The velocity field of the outer Galaxy in the Southern Hemisphere. II. CO observations of galactic nebulae 176, 188 (68, 1)

Brand, J., see Wilson, T.L., et al. 186, L5

Brandi, E., Gosset, E.: The ultraviolet spectrum of the peculiar emission-line star GG Carinae: the line identifications 176, 194 (68, 283)

Brandi, E., Gosset, E., Swings, J.-P.: The ultraviolet spectrum of the peculiar emission-line star GG Carinae 175, 151

Brandt, J.C., Niedner, M.B., Jr.: Plasma structures in comets P/Halley and Giacobini-Zinner 187, 281

Brandt, J.C., see Brosius, J.W., et al. 187, 267

Brandt, P.N., Mauter, H.A., Smartt, R.: Day-time seeing statistics at Sacramento Peak Observatory 188, 163

Brault, P., see Hoang-Binh, D., et al. 181, 134

Braun, A., see Yahel, R.Z., et al. 176, 223

Braun, R.: The structure and dynamics of young supernova remnants: new constraints from observations of shock-heated dust 171, 233

Braz, M.A., Epchtein, N.: New detections of probable massive pre-main sequence stars in the southern galactic plane 176, 245

Braz, M.A., Sivagnanam, P.: OH observations of galactic radio H II regions 181, 19

Breakiron, L.A.: Systematic and external errors of trigonometric parallaxes 183, 185 (70, 157)

Breger, M., Huang, Lin., Jiang, Shi.-yang, Guo, Zi.-he, Antonello, E., Mantegazza, L.: Multiple close frequencies of the Delta Scuti star θ ² Tau 175, 117

Bregman, J.D., Campins, H., Witteborn, F.C., Wooden, D.H., Rank, D.M., Allamandola, L.J., Cohen, M., Tielens, A.G.G.M.: Airborne and groundbased spectrophotometry of comet P/Halley from 5-13 µm 187, 616

Brenkle, J.P., see Edenhofer, P., et al. 187, 712

Brinca, A.L., Tsurutani, B.T.: Unusual characteristics of electromagnetic waves excited by cometary newborn ions with large perpendicular energies 187, 311

Brinca, A.L., see Tsurutani, B.T., et al. 187, 97

Brinkmann, W., Ögelman, H.: Soft X-ray observations of the radio pulsar PSR 1055-52 182, 71

Brinkmann, W., see Alpar, A., et al. 177, 101

Brinkmann, W., see Doll, H. 173, 86

Brinkmann, W., see Yahel, R.Z., et al. 176, 223

Brocato, E., Castellani, V.: Evolutionary constraints for young stellar clusters. I. The luminosity function of H-burning stars 182, 36

Broglia, P., see Antonello, E., et al. 171, 131

Bronfman, L., see Arnal, E.M., et al. 174, 78

Brooke, T.Y., Knacke, R.F., Joyce, R.R.: The near-infrared polarization and color of comet P/Halley 187, 621

Brooke, T.Y., see Knacke, R.F., et al. 187, 625

Brosche, P., Frantzen, H.P.: Systematic differences between "classical" radial velocities 176, 367

Brosius, J.W., Holman, G.D., Niedner, M.B., Brandt, J.C., Slavin, J.A., Smith, E.J., Zwickl, R.D., Bame, S.J.: The cause of two plasma-tail disconnection events in comet P/Halley during the ICE-Halley radial period 187, 267

Brown, A., see Byrne, P.B., et al. 180, 172

Brown, D.N., see Shore, S.N. 184, 219

Brown, D.N., see Shore, S.N., et al. 182, 285

Brown, J.C., Henrichs, H.F.: The relation between the visual polarisation and UV narrow absorption lines in irregular Be star variations 182, 107

Brown, P.J.F., see Keenan, F.P., et al. 178, 194

Brown, P.J.F., see Keenan, F.P., et al. 178, 317

Bruch, A.: Spectroscopy of the primary and secondary components of the dwarf nova AH Herculis 172, 187

Bruch, A., Aniol, R., Cunow, B.: The reclassification of the supposed dwarf nova V 1285 Cygni as a semiregular variable 185, 203

Bruch, A., Fischer, F.-J., Wilmsen, U.: An atlas and catalogue of northern dwarf novae 185, 357 (70, 481)

Bruggen, P., Smeyers, P.: Theoretical expressions for evolutionary period changes in non-radially pulsating stars 186, 170

Brunner, H., see Jordan, S., et al. 185, 253

Bryant, D.A., see Coates, A.J., et al. 187, 55

Bryant, D.A., see Johnstone, A.D., et al. 187, 25

Bryant, D., see Johnstone, A., et al. 187, 47

Bryant, D., see Thomsen, M.F., et al. 187, 141

Buat, V., Donas, J., Deharveng, J.M.: The initial mass function for massive stars: a comparison between the total Hα and ultraviolet fluxes of a sample of spiral and irregular galaxies 185, 33

Buccheri, R., Özel, M.E., Sacco, B.: The feasibility of periodicity searches in gamma-ray astronomy 175, 353 Buccheri, R., see Clear, J., et al. 174, 85

Buccheri, R., see Hermsen, W., et al. 175, 141

Buccheri, R., see Ögelman, H. 180, L23

Buccheri, R., see Ögelman, H. 186, L17

Buccheri, R., see Strong, A.W., et al. 173, 418 (67, 283)

Bücher, A., see Louistisserand, S., et al. 177, 352 (68, 539)

Buchert, S., see Ögelman, H., et al. 183, L27

Buckenmayer, C., see Barwig, H., et al. 175, 327

Buczilowski, U.R., Beck, R.: A multifrequency radio continuum survey of M33. I. Observations 176, 192 (68, 171)

Buehler, F., see Goldstein, R., et al. 187, 220

Bues, I., Kollatschny, W., Fricke, K.J., Schönknecht, G.: The bright QSO GD 1339 186, 99

Bühler, F., see Balsiger, H., et al. 187, 163

Bühler, F., see Schwenn, R., et al. 187, 160

Bujarrabal, V., Planesas, P., del Romero, A.: SiO maser emission in evolved stars: relation to IR continuum 175, 164

Buonanno, R., Corsi, C.E., Ferraro, I., Fusi Pecci, F.: CCD photometry in globular clusters. II. NGC 7492 173, 419 (67, 327)

Bürgi, A., see Geiss, J. 178, 286

Burkhart, C., Coupry, M.F., Lunel, M., van't Veer, C.: Li i-resonance-doublet observations and the abundance of lithium in Am and δ Del stars 172, 257

Burki, G., see Babel, J. 181, 34

Burki, G., see Mermilliod, J.C., et al. 185, 356 (70, 389)

Burlaga, L.F., see Raeder, J., et al. 187, 61

Burm, H., see Zuccarello, F., et al. 180, 218

Burnage, R., see Fehrenbach, C., et al. 177, 352 (68, 515)

Burnage, R., see Fehrenbach, C., et al. 186, 366 (71, 185)

Burnage, R., see Fehrenbach, C., et al. 188, 267 (71, 263)

Burnage, R., see Fehrenbach, C., et al. 188, 267 (71, 275)

Burton, W.M., see McDonnell, J.A.M., et al. 187, 719

Buschert, H., see Edenhofer, P., et al. 187, 712

Buson, L.M., see Bettoni, D. 173, 420 (67, 341)

Busso, M., Scaltriti, F., Persi, P., Robberto, M., Silvestro, G.: A search for non-stellar contributions to the optical and near-IR flux of RS CVn binaries. I. The cases of TY Pyx, UV Psc, RU Cnc and VV Mon 183, 83

Bussoletti, E., Colangeli, L., Borghesi, A., Orofino, V.: Tabulated extinction efficiencies for various types of submicron amorphous carbon grains in the wavelength range 1000 Å-300 μm 183, 187 (70, 257)

Bussoletti, E., see McDonnell, J.A.M., et al. 187, 719

Butler, C.J., Doyle, J.G., Andrews, A.D., Byrne, P.B., Linsky, J.L., Bornmann, P.L., Rodonò, M., Pazzani, V., Simon, T.: Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii 174, 139

Butler, C.J., see Haisch, B.M., et al. 181, 96

Butler, C.J., see Rodonò, M., et al. 176, 267

Butler, C.J., see Walter, F.M., et al. 186, 241

Butler, K., see Zeippen, C.J., et al. 188, 251

Butterworth, P.S., see Feldman, P.D., et al. 187, 325

Butterworth, P.S., see McFadden, L.A., et al. 187, 323

Byrd, G.G., Sundelius, B., Valtonen, M.: Tidal triggering of Seyfert galaxies and quasars: occurrence in multiple systems

Byrd, G.G., see Sundelius, B., et al. 174, 67

Byrne, P.B., Black, E., Thé, P.S.: Activity in late-type dwarfs. I. Walraven and Johnson photometry of flares and spot variations on Gl 867A (= FK Agr) in 1979 186, 261

Byrne, P.B., Doyle, J.G.: Activity in late-type dwarfs. II. Flares

and spot variations on Gl 867 A (= FK Aqr) in 1981 186, 268

Byrne, P.B., Doyle, J.G., Brown, A., Linsky, J.L., Rodonò, M.: Rotational modulation and flares on RS CVn and BY Dra stars. VI. Physical parameters of the chromospheres/transition regions of V711 Tau (HR 1099), II Peg and AR Lac during October 1981 180, 172

Byrne, P.B., see Butler, C.J., et al. 174, 139 Byrne, P.B., see Rodonò, M., et al. 176, 267

Cacciari, C., Clementini, G., Prévot, L., Lindgren, H., Lolli, M., Oculi, L.: The Baade-Wesselink method applied to field RR Lyrae stars. I. *UVBRI* photoelectric and radial velocity data 178, 325 (69, 135)

Cacciari, C., Malagnini, M.L., Morossi, C., Rossi, I.: Physical parameters for Population II stars 183, 314

Cahen, S., see Schaeffer, R., et al. 184, L1

Cailloux, M., see Soucail, G., et al. 184, 361

Çakır, S., see Ögelman, H., et al. 183, L27

Caloi, V., Castellani, V., Piccolo, F.: M62: a link between M13-like and Oosterhoff I globular clusters 173, 416 (67, 181)

Camenzind, M.: Hydromagnetic flows from rapidly rotating compact objects. II. The relativistic axisymmetric jet equilibrium 184, 341

Camenzind, M., see Courvoisier, T.J.-L. 183, 167

Campins, H., Joy, M., Harvey, P.M., Lester, D.F., Ellis HB, Jr.: Photometry of comet P/Halley from 40 to 160 µm 187, 632

Campins, H., Telesco, C.M., Decher, R., Ramsey, B.D.: Thermal infrared imaging of comet P/Halley 187, 601

Campins, H., see Bregman, J.D., et al. 187, 616

Campins, H., see Glaccum, W., et al. 187, 635

Campins, H., see Hammel, H.B., et al. 187, 665

Campins, H., see Herter, T., et al. 187, 629

Canal, R., see Isern, J., et al. 172, L23

Candy, B.N., Blair, D.G.: The pulsewidth-age relation of radio pulsars 183, L17

Cantò, J., see Torrelles, J.M., et al. 177, 171

Cantó, J., see Anglada, G., et al. 186, 280

Capelato, H.V., see Proust, D., et al. 173, 215 (67, 57)

Caplan, J., see Cox, P., et al. 171, 277

Cappellaro, E., see Sabbadin, F., et al. 182, 305

Caputo, F.: Observational tests for stellar evolution and pulsation theory. I. The globular clusters M4 and M15 172, 67

Caputo, F., De Stefanis, P., Paez, E., Quarta, M.L.: The galactic globular cluster system: constraints from Synthetic Horizontal Branches 176, 192 (68, 119)

Caputo, F., Martinez Roger, C., Paez, E.: The galactic globular cluster system: calibration of the ratio R = N(HB)/N(RGB) 183, 228

Capuzzo Dolcetta, R., see Di Fazio, A. 184, 263

Carbone, V., Veltri, P.: A simplified cascade model for M.H.D. turbulence 188, 239

Carlson, C.W., see Anderson, K.A., et al. 187, 290

Carlson, C.W., see d'Uston, C., et al. 187, 137

Carlson, C.W., see Korth, A., et al. 187, 149

Carlson, C.W., see Rème, H., et al. 187, 33

Caroli, E., see Stephen, J.B., et al. 185, 343

Carpino, M., Milani, A., Nobili, A.M.: Long-term numerical integrations and synthetic theories for the motion of the outer planets 181, 182

Carpino, M., see Milani, A., et al. 172, 265

Carquillat, J.M., see Pédoussaut, A., et al. 175, 136

Carrasco, G., Loyola, P.: Santiago declination catalogue. A declination catalogue of 412 FK4 stars (equinox 1950.0) 173, 214 (67, 1)

Carrasco, G., Loyola, P.: *UBVRI* photometry of FKSZ stars. I 185, 355 (70, 369)

Carrasco, L., see Chelli, A., et al. 177, 51

Carruthers, G.R., see Opal, C.B., et al. 187, 320

Carusi, A., Kresák, L., Perozzi, E., Valsecchi, G.B.: High-order librations of Halley-type comets 187, 899

Carvalho, J.C.: Constraints on confinement mechanisms of extragalactic radio sources 184, 79

Casoli, F., Combes, F., Stark, A.A.: Mapping of a molecular complex in a northern spiral arm of M 31 173, 43

Casoli, F., see Boissé, P., et al. 173, 229

Cassatella, A., Fransson, C., van Santvoort, J., Gry, C., Talavera, A., Wamsteker, W., Panagia, N.: Spectral evolution of SN 1987 A in the far-ultraviolet 177, L29

Cassatella, A., see Fransson, C., et al. 177, L33

Cassatella, A., see Waelkens, C., et al. 181, L5

Cassatella, A., see Wamsteker, W., et al. 177, L21

Cassé, M., see Schaeffer, R., et al. 184, L1

Cassinelli, J.P., see van der Hucht, K.A., et al. 175, 356

Castellani, V., Quarta, M.L.: The Oosterhoff dichotomy revisited. I. The ranking of RR Lyrae periods versus metallicity 186, 361 (71, 1)

Castellani, V., see Brocato, E. 182, 36

Castellani, V., see Caloi, V., et al. 173, 416 (67, 181)

Castelli, F., see Ramella, M., et al. 178, 322 (69, 1)

Caswell, J.L., Haynes, R.F.: Southern H_{II} regions: an extensive study of radio recombination line emission 171, 261

Caswell, J.L., see Kesteven, M.J. 183, 118

Catala, C., Kunasz, P.B.: Line formation in the winds of Herbig Ae/Be stars. The Hα line 174, 158

Catala, C., Praderic, F., Felenbok, P.: Rotational modulation of the wind of the PMS star AB Aur: new observations in CIV and MgII 182, 115

Catalano, F.A., see Kroll, R., et al. 173, 416 (67, 195)

Catalano, S., see Rodonò, M., et al. 176, 267

Catney, M., see McKeith, C.D., et al. 173, 204

Cavallini, F., Ceppatelli, G., Righini, A.: Interpretation of shifts and asymmetries of Fe1 lines in solar facular areas 173, 155

Cavallini, F., Ceppatelli, G., Righini, A., Alamanni, N.: 5-min oscillations in the wings and bisectors of solar photospheric Fe1 lines 173, 161

Cavallini, F., Ceppatelli, G., Righini, A., Meco, M., Paloschi, S., Tantulli, F.: The spectro-interferometer of the Arcetri Solar Tower 184, 386

Cayatte, V., Sol, H.: The active galaxy PKS 0521-36 and its optical jet 171, 25

Cayrel, R., see Reboul, H., et al. 177, 337

Cazenave, A., see Gaudon, P. 173, 183

Cazes, S., see Keller, H.U., et al. 187, 807

Celnik, W.E., Schmidt-Kaler, T.: Structure and dynamics of plasma-tail condensations of comet P/Halley 1986 and inferences on the structure and activity of the cometary nucleus 187, 233

Celnikier, L.M., Muschietti, L., Goldman, M.V.: Aspects of interplanetary plasma turbulence 181, 138

Ceppatelli, G., see Cavallini, F., et al. 173, 155

Ceppatelli, G., see Cavallini, F., et al. 173, 161

Ceppatelli, G., see Cavallini, F., et al. 184, 386

Cernicharo, J., Guélin, M.: Metals in IRC+10216: detection of NaCl, AlCl and KCl, and tentative detection of AlF 183, L10

Cernicharo, J., Guélin, M.: The physical and chemicál state of HCL 2 176: 299

Cernicharo, J., Guélin, M., Hein, H., Kahane, C.: Sulfur in IRC+10216 181, L9

Cernicharo, J., Guélin, M., Menten, K.M., Walmsley, C.M.: C₆H: astronomical study of its fine and hyperfine structure 181, L1

Cernicharo, J., Guélin, M., Walmsley, C.M.: Detection of the hyperfine structure of the C₅H radical 172, L5

Cernicharo, J., see Bachiller, R. 174, 368

Cernicharo, J., see Bachiller, R., et al. 185, 297

Cernicharo, J., see Guélin, M., et al. 175, L5

Cernicharo, J., see Guélin, M., et al. 182, L37

Cernicharo, J., see Martín-Pintado, J. 176, L1

Cerruti, M.A., Marton, S., Grieco, A., Lapasset, E., Sistero, R.F., Claria, J.J.: RS Indi: UBV light curves and period study 177, 350 (68, 351)

Cerruti-Sola, M., see Pallavicini, R., et al. 174, 116

Cersosimo, J.C., see Arnal, E.M., et al. 174, 78

Cesaroni, R., see Felli, M., et al. 182, 313

Cevolani, G., see Hajduková, M., et al. 187, 919

Chaffee FH, Jr., see Spite, F., et al. 171, L8

Chaffee FH, Jr., see Spite, M., et al. 172, L9

Chalabaev, A., see Bouchet, P., et al. 174, 288

Chalabaev, A., see Danks, A.C., et al. 184, 329

Chamaraux, P.: A statistical method to derive the true distribution of an astronomical parameter some values of which are known only by limits 177, 326

Chamaraux, P., Balkowski, C., Fontanelli, P.: H1 observations of lenticular and early type galaxies 178, 326 (69, 261)

Chamaraux, P., see Fontanelli, P., et al. 181, 217

Chambon, M.T., see Hubert, A.M., et al. 185, 357 (70, 443)

Chambon, M.T., see Hubert, A.M., et al. 186, 213

Chapellier, E., Le Contel, J.M., Valtier, J.C., Gonzalez-Bedolla, S., Ducatel, D., Morel, P.J., Sareyan, J.P., Geiger, I., Antonelli, P.: Short-period variations in i Herculis 176, 255

Chapman, J.M., see Diamond, P.J., et al. 174, 95

Charles, P., see van Paradijs, J., et al. 184, 201

Chassefière, E., Bertaux, J.L.: Elastic-collisional coupling between protons and helium atoms of interstellar origin in the heliospheric interface 174, 239

Chassefière, E., Bertaux, J.L.: Heating of helium of interstellar origin through elastic collisions with solar wind protons inside the heliosphere 176, 121

Chassefière, E., see Langevin, Y., et al. 187, 761

Chatterjee, S.: De Sitter-type of cosmological model in a fivedimensional theory of gravity with variable rest mass 179,

Chauville, J., see Ballereau, D. 183, 186 (70, 229)

Chauville, J., see Hubert, A.M., et al. 185, 357 (70, 443)

Chavarria-K, C., de Lara, E., Hasse, I.: Eight-colour photometry of stars associated with selected Sharpless HII regions at l-311 $3 \simeq 190^{\circ}$: S252, S254, S255, S257, and S261 171, 216

Chavarría-K, C., see Leitherer, C. 175, 208

Chelli, A., Perrier, C., Cruz-González, I., Carrasco, L.: High spatial resolution IR observations and variability of the nuclear region of NGC 1068: structure and nature of the inner 100 parsec 177, 51

Chen, P.S., see Gong, et al. 187, 594

Chevalier, C., Ilovaisky, S.A.: 2S0918-549: optical identification and study of a new distant low-mass X-ray binary 172, Chevalier, C., see Ilovaisky, S.A., et al. 179, L1

Chevreton, M., see Vauclair, G., et al. 175, L13

Chièze, J.P.: The fragmentation of molecular clouds: I. The mass-radius-velocity dispersion relations 171, 225

Chièze, J.-P., Pineau des Forêts, G.: The fragmentation of molecular clouds. II. Gravitational stability of low-mass molecular cloud cores 183, 98

Chini, R., Biermann, P.L., Kreysa, E., Kühr, H., Mezger, P.G., Schmidt, J., Witzel, A., Zensus, J.A.: FIR galaxies with compact radio cores 181, 237

Chini, R., Kreysa, E., Salter, C.J.: 1300 µm detection of the radio-quiet quasar 13349 + 2438 182, L63

Chini, R., Krügel, E., Wargau, W.: Dust emission and star formation in compact HII regions 181, 378

Chini, R., see Mezger, P.G., et al. 182, 127

Chitre, S.M., see Apparao, K.M.V., et al. 177, 198

Chiuderi-Drago, F., see Klein, K.-L. 175, 179

Chiumiento, G., Sarasso, M.: Time observations with the Photoelectric Transit Instrument at the Observatory of Torino in the period 1980.3-1985.3, reduced in the MERIT Standards 180, 279 (69, 415)

Chiumiento, G., Sarasso, M., Poma, A.: Right ascension corrections to 120 FK 4-stars by the analysis of time observations obtained with the Photoelectric Transit Instrument at Torino Observatory 183, 403

Chlebowski, T., see Heise, J., et al. 183, 73

Chlewicki, G.: The influence of shape on the temperature of

small graphite grains 181, 127

Chlewicki, G., de Groot, M.S., van der Zwet, G.P., Greenberg, J.M., Alvarez, P.P., Mampaso, A.: Correlation of broad and narrow diffuse band features: evidence of molecular carriers 173, 131

Chochol, D., see Iijima, T., et al. 178, 203

Chollet, F., Débarbat, S., Golbasi, O., Hascoët, J.-C., Lam, S.K., Lehman, M., Mangombi dei Ilonga, J., Texier, P.: Results of observations made in Paris with the astrolabe (Text in French) 173, 419 (67, 297)

Chollet, F., Débarbat, S., Hascoët, J.-C., Lam, S.K., Mangombidei Ilonga, J., Texier, P.: Results of observations made in Paris with the astrolabe. Time and latitude 1986 186, 363

Chollet, F., see Clauzet, L.B.F., et al. 173, 415

Chopinet, M., see Acker, A., et al. 186, 365 (71, 163)

Chromey, F.R., see Albers, H., et al. 182, L8

Chrysovergis, M., see Kontizas, M., et al. 176, 192 (68, 147)

Cidale, L., see Ringuelet, A.E., et al. 183, 287

Clairemidi, J., see Krasnopolsky, V.A., et al. 187, 707

Clairemidi, J., see Moreels, G., et al. 187, 551 Claria, J.J., see Cerruti, M.A., et al. 177, 350 (68, 351)

Clark, B.C., Mason, L.W., Kissel, J.: Systematics of the "CHON" and other light-element particle populations in comet P/Halley 187, 779

Clark, F.O.: The spatial distribution and spectral evolution of IRAS point sources around dense molecular clouds 180, L1

Clark, F.O., Turner, B.E.: OH emission and absorption in bipolar flows 176, 114

Clarke, D., McGale, P.A.: Temporal polarization variations of Be stars. II. Model fitting of polarimetric data 178, 294

Clausen, J.V., Giménez, A., García, J.M., Rolland, A.: Fourcolour photometry of eclipsing binaries. XXV. Light curves of V 451 Ophiuchi 176, 192 (68, 141)

Clausen, J.V., see Andersen, J., et al. 175, 60

Clausen, J.V., see Cristiani, S., et al. 177, L5

Clausen, J.V., see Grønbech, B., et al. 176, 195 (68, 323)

Clausen, J.V., see Grønbech, B., et al. 176, 196 (68, 331)

Claussen, M.J., see Schloerb, F.P., et al. 187, 469

Clausset, F., see Combes, F., et al. 180, L13

Clauzet, L.B.F., Débarbat, S., Chollet, F.: *Erratum:* Sur la position "optique" et "radio" du système α Scorpii (Optical and radio positions of α Scorpii) 173, 415

Clavel, J., see Panagia, N., et al. 177, L25

Clavel, J., see Wamsteker, W., et al. 177, L21

Clayton, C.A.: Area spectroscopy of the core of 30 Doradus 173, 137

Clear, J., Bennett, K., Buccheri, R., Grenier, I.A., Hermsen, W., Mayer-Hasselwander, H.A., Sacco, B.: A detailed analysis of the high energy gamma-ray emission from the Crab pulsar and nebula 174, 85

Clementini, G., see Cacciari, C., et al. 178, 325 (69, 135)

Clements, D.L., see Sumner, T.J., et al. 188, 273 (71, 557)

Cline, T., see Hudec, R., et al. 175, 71

Coates, A.J., Johnstone, A.D., Thomsen, M.F., Formisano, V.,
 Amata, E., Wilken, B., Jockers, K., Winningham, J.D., Borg,
 H., Bryant, D.A.: Solar wind flow through the comet P/Halley
 bow shock 187, 55

Coates, A.J., see Johnstone, A.D., et al. 187, 25

Coates, A., see Johnstone, A., et al. 187, 47

Coates, A., see Thomsen, M.F., et al. 187, 141

Coates, A., see Wilken, B., et al. 187, 153

Cohen, M., see Bregman, J.D., et al. 187, 616

Cohen, M., see Nguyen-Q-Rieu, et al. 180, 117

Colangeli, L., see Bussoletti, E., et al. 183, 187 (70, 257)

Colina, L., Fricke, K.J., Kollatschny, W., Perryman, M.A.C.: Extended emission line regions in nearby Seyfert galaxies. I. NGC 2992 178, 51

Colina, L., Fricke, K.J., Kollatschny, W., Perryman, M.A.C.: Extended emission line regions in nearby Seyfert galaxies. II. NGC 4388 186, 39

Collados, M., Vázquez, M.: A new determination of the solar granulation contrast 180, 223

Collin-Souffrin, S.: Line and continuum radiation from the outer region of accretion discs in active galactic nuclei. I. Preliminary considerations 179, 60

Colom, P., see Gérard, E., et al. 187, 455

Combes, F., Gerin, M., Wootten, A., Wlodarczak, G., Clausset, F., Encrenaz, P.J.: Acetone in interstellar space 180, L13

Combes, F., see Boissé, P., et al. 173, 229

Combes, F., see Casoli, F., et al. 173, 43

Combes, F., see Dupraz, C. 185, L1

Combes, F., see Gerin, M., et al. 173, L1

Combes, M., see Emerich, C., et al. 187, 839

Combes, M., see Maillard, J.P., et al. 187, 398

Combes, M., see Moroz, V.I., et al. 187, 513

Comoretto, G., see Falchi, A., et al. 187, 462

Comte, G., see Vigroux, L., et al. 172, 15

Conconi, P., see Antonello, E., et al. 171, 131

Conconi, P., see Poretti, E., et al. 178, 328 (69, 335)

Conlon, E.S., see Keenan, F.P., et al. 178, 194

Conlon, E.S., see Keenan, F.P., et al. 178, 317

Contini, M.: Model calculations for supernova remnants in the Large Magellanic Cloud 174, 5

Contini, M.: The complex structure of Cas A. Consistent model calculations 183, 53

Contini, M., Viegas-Aldrovandi, S.M.: Composite models for the narrow emission line region of active galactic nuclei. V. The line profiles 185, 39 Contopoulos, G., Varvoglis, H., Barbanis, B.: Large degree stochasticity in a galactic model 172, 55

Cooper, J.F., see Johnson, R.E., et al. 187, 889

Coradini, M., see Keller, H.U., et al. 187, 807

Corbally, C.J., Boyle, R.P.: A comparison between two-dimensional classifications from Vilnius photometry and those on the MK system 186, 114

Corbet, R.H.D., see van Paradijs, J., et al. 184, 201

Cordoni, J.P., see Ilovaisky, S.A., et al. 179, L1

Cornwell, T.J.: Radio-interferometric imaging of weak objects in conditions of poor phase stability: the relationship between speckle masking and phase closure methods 180, 269

Coron, N., see Emerich, C., et al. 187, 839

Coron, N., see Moroz, V.I., et al. 187, 513

Coroniti, F.V., see Scarf, F.L., et al. 187, 109

Corsi, C.E., see Buonanno, R., et al. 173, 419 (67, 327)

Corso, G.J., Ringwald, F.A., Harris, R.W.: Status of the Perseus optical flasher 183, L9

Corwin, H.G., see Paturel, G., et al. 184, 86

Cosmovici, C.B., see Feldman, P.D., et al. 187, 325

Cosmovici, C.B., see Keller, H.U., et al. 187, 807

Coté, J.: B and A type stars with unexpectedly large colour excesses at IRAS wavelengths 181, 77

Coté, J., Waters, L.B.F.M.: IRAS observations of Be stars. I. Statistical study of the IR excess of 101 Be stars 176, 93

Coté, J., see Waters, L.B.F.M., et al. 172, 225

Coté, J., see Waters, L.B.F.M., et al. 185, 206

Coupinot, G., see Hecquet, J., et al. 183, 13

Coupry, M.F., see Burkhart, C., et al. 172, 257

Courtès, G., Petit, H., Sivan, J.-P., Dodonov, S., Petit, M.: Hα survey of M33 with the six-meter telescope: morphology of the general diffuse emission, evidence for a chaotic medium of bubbles and filaments 174, 28

Courvoisier, T.J.-L., Camenzind, M.: Magnetic field and synchrotron radiation in mildly relativistic shocks 183, 167

Courvoisier, T.J.-L., Turner, M.J.L., Robson, E.I., Gear, W.K., Staubert, R., Blecha, A., Bouchet, P., Falomo, P., Valtonen, M., Teräsranta, H.: The radio to X-ray continuum emission of the quasar 3C273 and its temporal variations 176, 197

Couteau, P.: Measurements of visual double stars made at Pic du Midi and at Nice 183, 186 (70, 193)

Couteau, P.: New double stars (20th series) discovered at Nice (Text in French) 173, 214 (67, 13)

Couteau, P.: Orbits of six binary stars 188, 273 (71, 569)

Cowley, S.W.H., see Richardson, I.G., et al. 187, 276

Cowley, S.W.H., see Sanderson, T.R., et al. 187, 125

Cox, P., Leene, A.: Mid-infrared excess and ultraviolet extinction 174, 203

Cox, P., Deharveng, L., Caplan, J.: Extinction and reddening towards compact Galactic H II regions 171, 277

Cox, P., Güsten, R., Henkel, C.: Detection of the hydrocarbon ring molecule C₃H₂ in the planetary nebula NGC 7027 181, L19

Cox, P., see Leene, A. 174, L1

Coyne, G.V., see Piirola, V., et al. 185, 189

Coyne, G.V., see Piirola, V., et al. 186, 120

Crane, P., Stockton, A., Saslaw, W.C.: The optical spectral index in the south radio lobe of 3C33 183, 16

Craubner, H., see Schwarz, G., et al. 187, 847

Craven, J.D., Frank, L.A.: Atomic hydrogen production rates for comet P/Halley from observations with Dynamics Explorer 1 187, 351

Cremonese, G., see Barbieri, C., et al. 187, 893

Crézé, M., see Bienavmé, O., et al. 180, 94

Crézé, M., see Bienaymé, O., et al. 186, 359

Crézé, M., see Mohan, V. 177, 352 (68, 529)

Crifo, J.F.: Improved gas-kinetic treatment of cometary water sublimation and recondensation: application to comet P/Hallev 187, 438

Crifo, J.F., see Moroz, V.I., et al. 187, 513

Cristiani, S.: Observation of the HII galaxy giving origin to the z = 0.3930 absorption system of the QSO 1209 + 107 175, L1

Cristiani, S., Koehler, B.: Redshifts of quasar candidates 176, 196 (68, 339)

Cristiani, S., Babel, J., Barwig, H., Clausen, J.V., Gouiffes, C., Günter, T., Helt, B.E., Heynderickx, D., Loyola, P., Magnusson, P., Monderen, P., Rabattu, X., Sauvageot, J.L., Schoembs, R., Schwarz, H., Steeman, F.: Photometry of SN 1987 A 177, L5

Cristiani, S., de Souza, R., D'Odorico, S., Lund, G., Quintana, H.: Radial velocities of galaxies in the cluster Klemola 22 from observations with OPTOPUS, the ESO multiple object spectroscopy facility 179, 108

Cristiani, S., see Barbieri, C., et al. 175, 361 (67, 551)

Cristiani, S., see Danziger, I.J., et al. 177, L13

Cristiani, S., see Vidal-Madjar, A., et al. 177, L17

Crivellari, L., Beckman, J.E., Foing, B.H., Vladilo, G.: Call H emission line cores of late-type dwarfs: variability measurements and velocity field diagnostics 174, 127

Crivellari, L., see Vladilo, G., et al. 182, L59

Crivellari, L., see Vladilo, G., et al. 185, 233

Cronin, N.J., see Rainey, R., et al. 171, 252

Cronin, N.J., see Rainey, R., et al. 179, 237

Cros, A., see d'Uston, C., et al. 187, 137

Cros, A., see Rème, H., et al. 187, 33

Crovisier, J.: Rotational and vibrational synthetic spectra of linear parent molecules in comets 176, 194 (68, 223)

Crovisier, J., see Bockelée-Morvan, D. 187, 425

Crovisier, J., see Bockelée-Morvan, D., et al. 180, 253

Crovisier, J., see Emerich, C., et al. 187, 839

Crovisier, J., see Gérard, E., et al. 187, 455

Crovisier, J., see Maillard, J.P., et al. 187, 398

Crovisier, J., see Moroz, V.I., et al. 187, 513

Cruikshank, D.P., see Hammel, H.B., et al. 187, 665

Crutcher, R.M., Kazès, I., Troland, T.H.: Magnetic field strengths in molecular clouds 181, 119

Cruz-González, I., see Chelli, A., et al. 177, 51

Cunow, B., see Bruch, A., et al. 185, 203

Cuntz, M.: Episodic mass loss in late-type stars due to acoustic wave packets 188, L5

Cuny, Y.: Analysis of solar eclipse data: spicule model in the middle chromosphere 175, 243

Curdt, W., see Keller, H.U., et al. 187, 807

Curtis, C.C., Fan, C.Y., Hsieh, K.C., Hunten, D.M., Ip, W.-H., Keppler, E., Richter, A.K., Umlauft, G., Afonin, V.V., Dyachkov, A.V., Erö J, Jr., Somogyi, A.J.: Comet P/Halley neutral gas density profile along the Vega-1 trajectory measured by the Neutral Gas Experiment 187, 360

Curtis, C.C., see Hsieh, K.C., et al. 187, 375

Curtis, D.W., see Anderson, K.A., et al. 187, 290

Curtis, D.W., see Korth, A., et al. 187, 149

Curtis, D.W., see Rème, H., et al. 187, 33

Curtis, D., see d'Uston, C., et al. 187, 137

Cutispoto, G., see Rodonò, M., et al. 176, 267

Cuypers, J.: New observations and frequency analysis of the β Cephei star τ^1 Lupi **180**, 280 (**69**, 445)

Czarny, J., Felenbok, P., Roueff, E.: A search for interstellar NaH and MgH in diffuse clouds 188, 155

da Costa, L.N., see de Carvalho, R.R. 171, 66

Da Silva, L., Foy, R.: ζ¹ and ζ² Reticuli: a puzzling solar-type twin system 177, 204

Dachs, J., see Danziger, I.J., et al. 177, L13

Dachs, J., see Hanuschik, R.W. 182, L29

Daly, P.N., Phillipps, S., Disney, M.J.: CCD surface photometry of galaxies in the cluster Shapley 1346-30 176, 188 (68, 33)

Daly, P.W., see Richardson, I.G., et al. 187, 276 Daly, P.W., see Sanderson, T.R., et al. 187, 125

Dame, L., see Mein, P., et al. 177, 283

D'Amico, N., Lorenzetti, D., Massaro, E., Saraceno, P., Strafella, F.: Near-infrared photometry of LSI +61°303 180, 114

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V., Venkatesan, D.: Hard X-ray observations of the quasar 3C273 182, L1

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V., Venkatesan, D.: Erratum: Hard X-ray observations of the quasar 3C 273 186, L20

Danese, L., see Toffolatti, L., et al. 184, 7

Daniel, R.R., see Golden, R.L., et al. 188, 145

Danks, A.C., Encrenaz, T., Bouchet, P., Le Bertre, T., Chalabaev, A.: The spectrum of comet P/Halley from 3.0 to 4.0 µm 184, 329

Danks, A.C., see Arpigny, C., et al. 187, 485

Danks, A.C., see Feldman, P.D., et al. 187, 325

Danks, A., see Bouchet, P., et al. 174, 288

Danziger, I.J., Fosbury, R.A.E., Alloin, D., Cristiani, S., Dachs, J., Gouiffes, C., Jarvis, B., Sahu, K.C.: Optical spectroscopy of SN 1987 A 177, L13

Dapergolas, A., Kontizas, E., Kontizas, M., Morgan, D.H.: Spectral types of bright stars in the north-east arm of the Small Magellanic Cloud 182, 359 (70, 15)

Dapergolas, A., see Kontizas, E., et al. 182, 359 (70, 1)

David, M., Verschueren, W.: Interstellar clouds: morphological information from projected shapes 186, 295

Davies, S.R., see Matthews, N., et al. 184, 284

Davis, D.S., see Drapatz, S., et al. 187, 497

Davis, M.M., see Altschuler, D.R., et al. 178, 16

Dawe, J., see Rettig, T.W., et al. 187, 249

de Boer, K.S., Grewing, M., Richtler, T., Wamsteker, W., Gry, C., Panagia, N.: Interstellar lines in SN 1987 A observed with the IUE 177, L37

de Boer, K.S., see Dickel, H.R., et al. 176, 190 (68, 75)

de Boer, K.S., see Skuppin, R., et al. 177, 228

De Campos, J.A., see Di Martino, M., et al. 173, 216 (67, 95) de Carvalho, R.R., da Costa, L.N.: Surface photometry of the edge-on galaxy NGC 1381 171, 66

de Castro, E., see Reglero, V., et al. 188, 270 (71, 421)

de Grijp, M.H.K., Miley, G.K., Lub, J.: Warm IRAS sources. I. A catalogue of AGN candidates from the point source catalog 182, 362 (70, 95)

de Groot, M.S., see Chlewicki, G., et al. 173, 131

de Groot, M., see Haefner, R., et al. 179, 141

de Haan, J.F., Bosma, P.B., Hovenier, J.W.: The adding method for multiple scattering calculations of polarized light 183, 371

de Jager, C., Nieuwenhuijzen, H.: A new determination of the statistical relations between stellar spectral and luminosity classes and stellar effective temperature and luminosity 177, 217

de Jager, C., see Spaan, F.H.P., et al. 185, 229

de Jager, O.C.: The modulation of neutrinos from SN 1987 A during stellar collapse 185. L13

de Jong, T., see Wainscoat, R.J., et al. 181, 225

de Jonge, M.J., see Baars, J.W.M., et al. 175, 319

de Kool, M., van Paradijs, J.: Neutron star spin evolution in wide low-mass X-ray binaries 173, 279

de Kool, M., van den Heuvel, E.P.J., Pylyser, E.: An evolutionary scenario for the black hole binary A0620-00 183, 47

de Lara, E., see Chavarria-K, C., et al. 171, 216

de Loore, C., Monderen, P., Rousseeuw, P.: A new statistical method to derive radial velocity shifts from stellar spectra 178, 307

de Martino, D., see Vittone, A.A., et al. 179, 157

de Muizon, M., see Baron, Y., et al. 186, 271

de Muizon, M., see Gal, O., et al. 183, 29

de Ruiter, H.R., see Fanti, C., et al. 178, 323 (69, 57)

de Ruiter, H.R., see Morganti, R., et al. 183, 203

de Ruiter, H.R., see Parma, P., et al. 181, 244

de Ruiter, H.R., see Rogora, A., et al. 173, 418 (67, 267)

de Souza, R.E., dos Anjos, S.: Box-shaped galaxies: a complete list 185, 357 (70, 465)

de Souza, R., see Cristiani, S., et al. 179, 108

De Stefanis, P., see Caputo, F., et al. 176, 192 (68, 119)

de Vaucouleurs, G., see Paturel, G., et al. 184, 86

de Vegt, C., Zacharias, N.: A catalog of precise reference star, positions for the astrometry network of the international comcι P/Halley campaign 188, 272 (71, 525)

de Vegt, C., Kleine, T., Johnston, K.J., Bowers, P.F., Spencer, J.H.: Optical and radio astrometry of four late-type stars with maser emission 179, 322

de Vries, H.W., see Heithausen, A., et al. 179, 263

de Vries, J.S., see Jakobsen, P., et al. 183, 335

De Zotti, G., see Toffolatti, L., et al. 184, 7

Débarbat, S., see Chollet, F., et al. 173, 419 (67, 297)

Débarbat, S., see Chollet, F., et al. 186, 363 (71, 109)

Débarbat, S., see Clauzet, L.B.F., et al. 173, 415

Debehogne, H.: Elliptic orbit of asteroid 1985 CQ1 and theoretical considerations 172, 342

Debehogne, H., see Di Martino, M., et al. 173, 216 (67, 95)

Decher, R., see Campins, H., et al. 187, 601

Decher, R., see Hammel, H.B., et al. 187, 665

Deharveng, J.M., see Buat, V., et al. 185, 33

Deharveng, J.M., see Donas, J., et al. 180, 12

Deharveng, L., see Cox, P., et al. 171, 277

del Río, G., Fenkart, R.: RGU three-colour photometric space densities in a field near the galactic centre (PLAUT II), compared with different Galaxy models 177, 350 (68, 397)

del, Río, G., see Moles, M., et al. 186, 77

del Romero, A., see Bujarrabal, V., et al. 175, 164

Delamere, A., see Schwarz, G., et al. 187, 847

Delamere, W.A., see Keller, H.U., et al. 187, 807

Delbourgo-Salvador, P., Audouze, J., Vidal-Madjar, A.: Extreme possible variations of the deuterium abundance within the Galaxy 174, 365

Delbourgo-Salvador, P., see Salati, P., et al. 173, 1

Delitsky, M., see Allen, M., et al. 187, 502

Delpino, F., see Bonoli, F., et al. 185, 25

Delsemme, A.H.: Galactic tides affect the Oort cloud: an observational confirmation 187, 913

Démoulin, P., Raadu, M.A., Malherbe, J.M., Schmieder, B.: Fine structures in solar filaments. I. Observations and thermal stability 183, 142

Deng, Li.-Wu., see Xie, Guang.-Zhong., et al. 173, 214 (67, 17)

Dennefeld, M., see Belfort, P., et al. 176, 1

Denoyelle, J.: Radial velocities in three fields along the southern galactic equator 185, 355 (70, 373)

Dent, W.R.F., see Matthews, N., et al. 184, 284

Derman, E., see Aslan, Z., et al. 188, 274 (71, 597)

Desai, U., see Hudec, R., et al. 175, 71

Deshpande, M.R., see Joshi, U.C., et al. 181, 31

Deshpande, M.R., see Kulshrestha, A., et al. 188, 273 (71, 565)

Despois, D., see Bockelée-Morvan, D., et al. 180, 253

Despois, D., see Jacq, T., et al. 173, 347

Deul, E.R., van der Hulst, J.M.: A survey of the neutral atomic hydrogen in M 33 175, 360 (67, 509)

d'Hendecourt, L.B., Léger, A.: Effect of photoionization of PAH molecules on the heating of H1 interstellar gas 180, L9

Di Benedetto, G.P., Rabbia, Y.: Accurate angular diameters and effective temperatures for eleven giants cooler than K0 by Michelson interferometry 188, 114

Di Cocco, G., see Stephen, J.B., et al. 185, 343

Di Fazio, A., Capuzzo Dolcetta, R.: The possibility of a single fragmentation law for the formation of different astronomical objects 184, 263

Di Martino, M., Zappala', V., De Campos, J.A., Debehogne, H., Lagerkvist, C.-I.: Rotational properties and light curves of the minor planets 94, 107, 197, 201, 360, 451, 511 and 702 173, 216 (67, 95)

di Serego Alighieri, S., see Nieto, J.-L., et al. 178, 301

Dialetis, D., see Alissandrakis, C.E., et al. 174, 275

Diamond, P.J., Johnston, K.J., Chapman, J.M., Lane, A.P., Bowers, P.F., Spencer, J.H., Booth, R.S.: Interferometric observations of the H₂O and OH maser emission from S Persei 174, 95

Dickel, H.R., Goss, W.M.: VLA observations of the 6 cm and 2 cm lines of H₂CO in the direction of W 3(OH) 185, 271

Dickel, H.R., Lortet, M.-C., de Boer, K.S.: Designation and nomenclature for astronomical sources of radiation 176, 190 (68, 75)

Dimitrijević, M.S., Konjević, N.: Simple estimates for Stark broadening of ion lines in stellar plasmas 172, 345

Dimitrijević, M.S., Mihajlov, A.A., Popović, M.M.: Stark broadening trends along homologous sequences 182, 360 (70, 57)

Disney, M.J., see Daly, P.N., et al. 176, 188 (68, 33)

Divine, N., Newburn RL, Jr.: Modeling P/Halley before and after the encounters 187, 867

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N.: Far-UV variability of θ Cr B in 1985–86: a progression toward higher velocities 173, L8

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N., Bourdonneau, B.: Long term variability of the far-UV high velocity components in γ Cas (1978–1986) 182, L25

Döbereiner, S., see Bender, R., et al. 177, L53

Dodero, M.A., see Antonucci, E., et al. 180, 263

Dodonov, S., see Courtès, G., et al. 174, 28

D'Odorico, S., see Bergeron, J., et al. 180, i

D'Odorico, S., see Cristiani, S., et al. 179, 108

Dolder, U., see Eberhardt, P., et al. 187, 435

Dolder, U., see Eberhardt, P., et al. 187, 481 Dolder, U., see Lämmerzahl, P., et al. 187, 169

Dolez, N., see Vauclair, G., et al. 175, L13

Doll, H., Brinkmann, W.: Temporal variability of the massive X-ray binary 4U 1700-37 173, 86

Dollfus, A., Suchail, J.-L.: Polarimetry of grains in the coma of P/Halley. I. Observations 187, 669 Domingo, V., see Jimenez, A., et al. 172, 323

Domínguez-Tenreiro, R., Yepes, G.: Light element production in Barker's cosmologies 177, 5

Donas, J., Deharveng, J.M., Laget, M., Milliard, B., Huguenin, D.: Ultraviolet observations and star-formation rate in galaxies 180, 12

Donas, J., see Buat, V., et al. 185, 33

Doom, C.: The galactic distribution of Wolf-Rayet stars 182, L43

Dorland, H., Montmerle, T.: Hollow HII regions. II. Mechanism for wind energy dissipation and diffuse X-ray emission 177, 243

dos Anjos, S., see de Souza, R.E. 185, 357 (70, 465)

Doschek, G.A., see Antonucci, E., et al. 188, 159

Dossin, F., see Arpigny, C., et al. 187, 485

Downes, D., see Altenhoff, W.J., et al. 184, 381

Doyle, J.G.: A rotational modulation effect in the flare frequency on EV Lac 177, 201

Doyle, J.G.: Identification of forbidden lines from the N1-like ions Siviii, Sx and Arxii 173, 408

Doyle, J.G., see Butler, C.J., et al. 174, 139

Doyle, J.G., see Byrne, P.B. 186, 268

Doyle, J.G., see Byrne, P.B., et al. 180, 172

Doyle, J.G., see Haisch, B.M., et al. 181, 96

Doyle, J.G., see Rodonò, M., et al. 176, 267

Drake, J.F., see Shelley, E.G., et al. 187, 304

Drake, J.J., see Smith, G. 181, 103

Drake, J., see Goldstein, B.E., et al. 187, 174

Drapatz, S., Larson, H.P., Davis, D.S.: Search for methane in comet P/Halley 187, 497

Dravins, D.: Stellar granulation. I. The observability of stellar photospheric convection 172, 200

Dravins, D.: Stellar granulation. II. Stellar photospheric line asymmetries 172, 211

Drechsel, H., see Mayer, P. 183, 61

Dreier, H., see Schoembs, R., et al. 181, 50

Dröge, W., Lerche, I., Schlickeiser, R.: Second-order Fermi acceleration and radio spectral index distributions in supernova remnants and bright spiral galaxies 178, 252

Drossart, P., see Festou, M.C., et al. 187, 575

Dubau, J., see Antonucci, E., et al. 180, 263

Dubau, J., see Volonté, S., et al. 182, 167

Ducatel, D., see Chapellier, E., et al. 176, 255

Duflot, M., see Fehrenbach, C., et al. 188, 267 (71, 263)

Duflot, M., see Fehrenbach, C., et al. 188, 267 (71, 275)

Dufton, P.L., see Finkenthal, M., et al. 184, 337

Dufton, P.L., see Keenan, F.P., et al. 178, 194

Dulk, G.A., Steinberg, J.L., Hoang, S., Goldman, M.V.: The speeds of electrons that excite solar radio bursts of type III 173, 366

Duncan, D.K., see Pallavicini, R., et al. 174, 116

Dunn, R.B., see von der Lühe, O. 177, 265

Dupraz, C., Combes, F.: Dynamical friction and shells around elliptical galaxies 185, L1

Duquennoy, A.: A study of multiple stellar systems with COR-AVEL (I) 178, 114

Duquennoy, A., see Jasniewicz, G., et al. 180, 145

Durret, F., Bergeron, J.: Imaging of the ionized gas and stars in emission line galaxies 173, 219

Durret, F., see Bergeron, J. 184, 93

d'Uston, C., Rême, H., Sauvaud, J.A., Cros, A., Anderson, K.A., Carlson, C.W., Curtis, D., Lin, R.P., Korth, A., Richter, A.K., Mendis, A.: Description of the main boundaries seen by the Giotto electron experiment inside comet P/Halley-solar wind interaction region 187, 137

d'Uston, C., see Anderson, K.A., et al. 187, 290

d'Uston, C., see Korth, A., et al. 187, 149

d'Uston, C., see Rème, H., et al. 187, 33

Dvorak, R., see Ferraz-Mello, S. 179, 304

Dyachkov, A.V., see Curtis, C.C., et al. 187, 360

Dyachkov, A.V., see Mazets, E.P., et al. 187, 699

Dymond, K.F., see Woods, T.N., et al. 187, 380

Eberhardt, P., Dolder, U., Schulte, W., Krankowsky, D., Lämmerzahl, P., Hoffman, J.H., Hodges, R.R., Berthelier, J.J., Illiano, J.M.: The D/H ratio in water from comet P/Halley 187, 435

Eberhardt, P., Krankowsky, D., Schulte, W., Dolder, U., Lämmerzahl, P., Berthelier, J.J., Woweries, J., Stubbemann, U., Hodges, R.R., Hoffman, J.H., Illiano, J.M.: The CO and N₂ abundance in comet P/Halley 187, 481

Eberhardt, P., see Lämmerzahl, P., et al. 187, 169

Ebert, R., see Schmitz, F. 181, 41

Eckart, A., Witzel, A., Biermann, P., Johnston, K.J., Simon, R., Schalinski, C., Kühr, H.: Investigation of a complete sample of flat spectrum radio sources from the S5 survey. II. Results 173, 217 (67, 121)

Edenhofer, P., Bird, M.K., Brenkle, J.P., Buschert, H., Kursinski, E.R., Mottinger, N.A., Porsche, H., Stelzried, C.T., Volland, H.: Dust distribution of comet P/Halley's inner coma determined from the Giotto Radio-Science Experiment 187, 712

Edsall, D.M., see McFadden, L.A., et al. 187, 333

Edvardsson, B., see Westerlund, B.E., et al. 178, 41

Efimov, A.I., see Armand, N.A., et al. 183, 135

Efimov, Y.S., see Huovelin, J., et al. 176, 83

Ehlers, J., Rindler, W.: How far can observable relations determine a Robertson-Walker metric? 174, 1

Eiroa, C., Leinert, C.: Speckle observations of the ice feature in the young double source Serpens SVS 20 188, 46

Eiroa, C., Lenzen, R., Leinert, C., Hodapp, K.-W.: Serpens – SVS 20: a new young infrared double source 179, 171

Ekelund, A., see Winnberg, A., et al. 172, 335

Ekelund, L., see Winnberg, A., et al. 172, 335

Elldér, J., see Millar, T.J., et al. 182, 143

Ellis HB, Jr., see Campins, H., et al. 187, 632

Elo, A.-M., see Teräsranta, H., et al. 186, 364 (71, 125)

Emerich, C., Lamarre, J.M., Moroz, V.I., Combes, M., Sanko, N.F., Nikolsky, Y.V., Rocard, F., Gispert, R., Coron, N., Bibring, J.P., Encrenaz, T., Crovisier, J.: Temperature and size of the nucleus of comet P/Halley deduced from IKS infrared Vega-1 measurements 187, 839

Emerich, C., see Moroz, V.I., et al. 187, 513

Emerson, G., see Sekanina, Z., et al. 187, 645

Encrenaz, P.J., see Combes, F., et al. 180, L13

Encrenaz, P.J., see Gerin, M., et al. 173, L1

Encrenaz, T., see Bouchet, P., et al. 174, 288

Encrenaz, T., see Danks, A.C., et al. 184, 329

Encrenaz, T., see Emerich, C., et al. 187, 839

Encrenaz, T., see Festou, M.C., et al. 174, 299

Encrenaz, T., see Festou, M.C., et al. 187, 575

Encrenaz, T., see Maillard, J.P., et al. 187, 398

Encrenaz, T., see Moroz, V.I., et al. **187**, 513 Engels, D., see Hagen, H.-J., et al. **183**, L7

Engin, S., see Aslan, Z., et al. 188, 274 (71, 597)

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos,

P., Matsuura, O.T., Picazzio, E.: *Erratum:* Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources **188**, 269 (71, 411)

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E.: Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources 186, 362 (71, 39)

Epchtein, N., see Bouchet, P., et al. 174, 288

Epchtein, N., see Bouchet, P., et al. 177, L9

Epchtein, N., see Braz, M.A. 176, 245

Epchtein, N., see Le Bertre, T. 171, 116

Epchtein, N., see Nguyen-Q-Rieu, et al. 180, 117

Ercan, E.N., see Kundt, W., et al. 177, 163

Erdős, G., see Gribov, B.E., et al. 187, 293

Eriksson, K., see Olofsson, H., et al. 183, L13

Его J, Jr., see Curtis, C.C., et al. 187, 360

Erö J, Jr., see Hsieh, K.C., et al. 187, 375

Eroshenko, E.G., see Gribov, B.E., et al. 187, 293

Estalella, R., see Anglada, G., et al. 186, 280

Estalella, R., see Paredes, J.M., et al. 186, 177

Estulin, I., see Hudec, R., et al. 175, 71

Evans, G.C., see McDonnell, J.A.M., et al. 187, 719

Evans, S.T., see McDonnell, J.A.M., et al. 187, 719

Evans, W.D., see Hudec, R., et al. 175, 71

Evlanov, E.N., see Sagdeev, R.Z., et al. 187, 179

Fabbri, R., Tamburrano, M.: Polarization of the cosmic background radiation in magnetic Bianchi type-II cosmologies 179, 11

Fairhead, L., Arlot, J.-E., Jannot, Y., Thuillot, W.: A catalogue of occultation observations of the Galilean satellites of Jupiter 176, 190 (68, 81)

Falchi, A., Gagliardi, L., Palagi, F., Tofani, G., Comoretto, G.: 10.7 GHz continuum observations of comet P/Halley 187,

Falgarone, E., see Bonazzola, S., et al. 172, 293

Falomo, P., see Courvoisier, T.J.-L., et al. 176, 197

Falomo, R., see Sabbadin, F., et al. 175, 360 (67, 541)

Fan, C.Y., see Curtis, C.C., et al. 187, 360

Fan, C.Y., see Hsieh, K.C., et al. 187, 375

Fang, C., see Zhang, O.Z. 175, 277

Fanti, C., Fanti, R., de Ruiter, H.R., Parma, P.: VLA observations of low luminosity radio galaxies. IV. The B2 sample revisited 178, 323 (69, 57)

Fanti, C., see Morganti, R., et al. 183, 203

Fanti, C., see Padrielli, L., et al. 173, 215 (67, 63)

Fanti, C., see Parma, P., et al. 181, 244

Fanti, R., see Fanti, C., et al. 178, 323 (69, 57)

Fanti, R., see Morganti, R., et al. 183, 203

Fanti, R., see Padrielli, L., et al. 173, 215 (67, 63)

Fanti, R., see Parma, P., et al. 181, 244

Faucher, P., see Volonté, S., et al. 182, 167

Faundez-Abans, M., Maciel, W.J.: The classification of planetary nebulae 183, 324,

Faurobert, M.: Linear polarization of resonance lines in the absence of magnetic fields. I. Slabs of finite optical thickness 178, 269

Favati, B., Landi Degl'Innocenti, E., Landolfi, M.: Resonance scattering of Lyman-α in the presence of an electrostatic field 179, 329

Fechtig, H., see Boehnhardt, H. 187, 824

Federici, L., see Battistini, P., et al. 175, 358 (67, 447)

Federici, L., see Bonoli, F., et al. 185, 25

Fedorov, A., see Vaisberg, O.L., et al. 187, 183

Fehrenbach, C., Burnage, R., Duflot, M., Peton, A., Rolland, L., Genty, V., Mannone, C.: Radial velocities. I. Groundbased measurements for Hipparcos 188, 267 (71, 263)

Fehrenbach, C., Burnage, R., Figuière, J., Traversa, G., Agniel, C.: List of radial velocities of 258 stars near Alpha Persei (Text in French) 177, 352 (68, 515)

Fehrenbach, C., Burnage, R., Figuière, J., Traverse, G., Agniel, C.: *Erratum:* List of radial velocities of 258 stars near Alpha Persei 186, 366 (71, 185)

Fehrenbach, C., Duflot, M., Burnage, R., Mannone, C., Peton, A., Genty, V.: Radial velocities. II. Ground-based measurements for Hipparcos 188, 267 (71, 275)

Feitzinger, J.V., Galinski, T.: The fractal dimension of starforming sites in galaxies 179, 249

Feitzinger, J.V., Spicker, J.: A comparative study of galactic radial velocity fields 184, 122

Feldman, P.D., Festou, M.C., A'Hearn, M.F., Arpigny, C., Butterworth, P.S., Cosmovici, C.B., Danks, A.C., Gilmozzi, R., Jackson, W.M., McFadden, L.A., Patriarchi, P., Schleicher, D.G., Tozzi, G.P., Wallis, M.K., Weaver, H.A., Woods, T.N.: IUE observations of comet P/Halley: evolution of the ultraviolet spectrum between September 1985 and July 1986 187, 325

Feldman, P.D., see McFadden, L.A., et al. 187, 333

Feldman, P.D., see Woods, T.N., et al. 187, 380

Feldman, W.C., see Thomsen, M.F., et al. 187, 141

Felenbok, P., see Catala, C., et al. 182, 115

Felenbok, P., see Czarny, J., et al. 188, 155

Felli, M., Stanga, R.: IR observations of a star-forming region in M17 175, 193

Felli, M., Hjellming, R.M., Cesaroni, R.: S 201: an H II region produced by an ionization front eroding a molecular cloud 182, 313

Feng, X.C., see Machara, H., et al. 178, 221

Fenimore, E.E., see Hudec, R., et al. 175, 71

Fenkart, R., Karaali, S.: Model-compared *RGU*-photometric space densities in the high-latitude field M 101 178, 322 (69, 33)

Fenkart, R., Topaktas, L.: RGU-photometry in a complexly reddened Milky Way field in the direction to SA 193 178, 327 (69, 279)

Fenkart, R., Topaktas, L., Boydağ, S., Kandemir, G.: RGUthree colour photometry in the anticentre-intermediate latitude field NGC 2420 173, 417 (67, 245)

Fenkart, R., see del Rio, G. 177, 350 (68, 397)

Feretti, L., Giovannini, G.: High resolution radio observations of NGC 4874 182, 15

Feretti, L., see Giovannini, G., et al. 178, 325 (69, 171)

Ferlet, R., Hobbs, L.M., Vidal-Madjar, A.: The Beta Pictoris circumstellar disk. V. Time variations of the Call-K line 185, 267

Ferlet, R., see Lagrange, A.M., et al. 173, 289

Ferlet, R., see Vidal-Madjar, A., et al. 177, L17

Fernandez-Figueroa, M.J., see Reglero, V., et al. 188, 270 (71,

Ferrari-Toniolo, M., see Persi, P., et al. 185, 356 (70, 437)

Ferraro, I., see Buonanno, R., et al. 173, 419 (67, 327)

Ferraz-Mello, S.: Expansion of the disturbing force-function for the study of high-eccentricity librations 183, 397

Ferraz-Mello, S., Dvorak, R.: Chaos and secular variations of planar orbits in 2:1 resonance with Dione 179, 304

Ferraz-Mello, S., see Gomes, R.S. 185, 327

Ferraz-Mello, S., see Lazzaro, D., et al. 182, 150

Ferraz-Mello, S., see Lazzaro, D., et al. 186, 360

Ferriz-Mas, A., Moreno-Insertis, F.: An analytical study of shock waves in thin magnetic flux tubes 179, 268

Festou, M.C., Drossart, P., Lecacheux, J., Encrenaz, T., Puel, F., Kohl-Moreira, J.L.: Periodicities in the light curve of P/Halley and the rotation of its nucleus 187, 575

Festou, M.C., Encrenaz, T., Boisson, C., Pedersen, H., Tarenghi, M.: Comet IRAS-Araki-Alcock (1983 VIII): distribution of the dust and of gaseous species in the vicinity of the nucleus 174, 299

Festou, M.C., see Feldman, P.D., et al. 187, 325

Ficarra, A., see Padrielli, L., et al. 173, 215 (67, 63)

Figon, P., see Augarde, R., et al. 185, 4

Figueras, F., see Rosselló, G., et al. 173, 217 (67, 157)

Figuière, J., see Fehrenbach, C., et al. 177, 352 (68, 515)

Figuière, J., see Fehrenbach, C., et al. 186, 366 (71, 185)

Finkenthal, M., Yu, T.L., Allen, S.L., Huang, L.K., Lippmann, S., Moos, H.W., Stratton, B.C., Dufton, P.L., Kingston, A.E.: Sitv line ratios in laboratory plasmas: a comparison of experimental data and theoretical computations 184, 337

Firth, J.G., see McDonnell, J.A.M., et al. 187, 719

Fischer, D.: The neutrino burst from Supernova 1987 A: a search for periodicities 186, L11

Fischer, F.-J., see Bruch, A., et al. 185, 357 (70, 481)

Fischerström, C., see Liseau, R., et al. 183, 274

Fisher, W.A., see Hill, G. 171, 123

Fleig, K.H., see Nesis, A., et al. 182, L5

Flocard, H., see Lassaut, M., et al. 183, L3

Floquet, M., see Hubert, A.M., et al. 185, 357 (70, 443)

Floquet, M., see Hubert, A.M., et al. 186, 213

Florsch, A., Marcout, J., Traversa, G.: The spectrum of P/Halley's coma obtained with an objective-prism 187, 357

Foing, B.H., see Crivellari, L., et al. 174, 127

Foing, B.H., see Vladilo, G., et al. 185, 233

Fokker, A.D.: The luminosity decay of radio pulsars and some related matters 182, 41

Fomenkova, M.N., see Sagdeev, R.Z., et al. 187, 179

Fontanelli, P., Chamaraux, P., Balkowski, C.: The galaxian surface density of the nearby universe 181, 217

Fontanelli, P., see Chamaraux, P., et al. 178, 326 (69, 261)

Fontanelli, P., see Talavera, A., et al. 178, 328 (69, 331)

Forbes, D., see Leitherer, C., et al. 185, 121

Forkert, T., Altschuler, D.R.: Flux density measurements of faint radio sources at 2.7 and 4.75 GHz 182, 361 (70, 77)

Formiggini, C., see Hajduková, M., et al. 187, 919

Formisano, V., see Coates, A.J., et al. 187, 55

Formisano, V., see Johnstone, A., et al. 187, 47

Formisano, V., see Johnstone, A.D., et al. 187, 25

Formisano, V., see Mogilevsky, M., et al. 187, 80

Formisano, V., see Thomsen, M.F., et al. 187, 141

Formisano, V., see Trotignon, J.G., et al. 187, 83

Formisano, V., see Wilken, B., et al. 187, 153

Fort, B., see Soucail, G., et al. 172, L14

Fort, B., see Soucail, G., et al. 184, L7

Fort, B., see Soucail, G., et al. 184, 361

Forveille, T., Morris, M., Omont, A., Likkel, L.: IRAS 09371 + 1212: an icy evolved, mass-losing star with a unique IR spectrum 176, L13

Forveille, T., see Bockelée-Morvan, D., et al. 180, 253

Forveille, T., see Likkel, L., et al. 173, L11

Fosbury, R.A.E., see Danziger, I.J., et al. 177, L13

Fossat, E., Gelly, B., Grec, G., Pomerantz, M.: Search for solar p-mode frequency changes between 1980 and 1985 177, L47

Fouqué, P.: An expanding shell of galaxies in the center of the Hydra I cluster? 185, 94

Fouqué, P., see Bottinelli, L., et al. 181, 1

Fouqué, P., see Paturel, G., et al. 184, 86

Fowler, W.A., see Humblet, J., et al. 177, 317

Foy, R., see Blazit, A., et al. 186, 362 (71, 57)

Foy, R., see Da Silva, L. 177, 204

Foy, R., see Lortet, M.C., et al. 180, 111 Franceschini, A., see Toffolatti, L., et al. 184, 7

Franco, J., see Tenorio-Tagle, G., et al. 179, 219

François, P.: Determination of the sulphur abundance in metaldeficient dwarf stars 176, 294

François, P., see Spite, M., et al. 188, 274 (71, 591)

Francou, G., see Rapaport, M., et al. 179, 317

Frandsen, S.: An upper limit on p-mode amplitudes in β Hyi 181, 289

Frank, J., King, A.R., Lasota, J.-P.: The light curves of low-mass X-ray binaries 178, 137

Frank, L.A., see Craven, J.D. 187, 351

Fransson, C., Grewing, M., Cassatella, A., Panagia, N., Wamsteker, W.: Implications of the UV observations of SN 1987 A 177, L33

Fransson, C., see Cassatella, A., et al. 177, L29

Frantzen, H.P., see Brosche, P. 176, 367

Frederiks, D.D., see Mazets, E.P., et al. 187, 699

Freeman, K.C., see Bottema, R., et al. 178, 77

Freire Ferrero, R., Gouttebroze, P., Talavera, A.: Analysis of the MgII resonance lines in the spectrum of Sirius 173, 315

Fricke, K.J., see Bues, I., et al. 186, 99

Fricke, K.J., see Colina, L., et al. 178, 51

Fricke, K.J., see Colina, L., et al. 186, 39

Fricke, K.J., see Kollatschny, W. 183, 9

Fricke, K.J., see Netzer, H., et al. 171, 41

Friedjung, M.: Reasons why nova FH Serpentis 1970 probably had a total luminosity above the Eddington limit during its outburst 179, 164

Friedjung, M.: The formation of the principal system of novae 180, 155

Friedjung, M., Muratorio, G.: Singly ionized iron as a diagnostic of stellar envelopes. I. The methods 188, 100

Fringant, A.M., see Reboul, H., et al. 177, 337

Froeschlé, Ch., Scholl, H.: Orbital evolution of asteroids near the secular resonance v₆ 179, 294

Fuensalida, J.J., see Bedford, D.K., et al. 182, 264

Fujimoto, M.Y.: Dynamical stability of differentially rotating bodies to non-axisymmetric perturbations 176, 53

Fukui, T., see Arai, K., et al. 179, 17

Fukui, Y., see Tatematsu, K., et al. 184, 279

Fulle, M.: A new approach to the Finson-Probstein method of interpreting cometary dust tails 171, 327

Fulle, M.: A possible Neck-Line Structure in the dust tail of comet Halley 181, L13

Fulle, M.: Meteoroids from comet Bennett 1970II 183, 392

Fulle, M., see Pansecchi, L., et al. 176, 358

Furenlid, I., see Sterken, C., et al. 177, 150

Furia, M., see Billaud, G., et al. 176, 190 (68, 67)

Fürst, E., Handa, T., Reich, W., Reich, P., Sofue, Y.: Multifrequency radio continuum observations of extended galactic objects. II. Eleven objects from the 2695 MHz Effelsberg galactic plane survey 180, 279 (69, 403)

Fürst, E., Reich, W., Sofue, Y.: The identification of galactic

radio sources based on a comparison of radio-continuum and infrared emission 186, 362 (71, 63)

Fürst, E., see Benz, A.O. 175, 282

Fürst, E., see Junkes, N., et al. 180, 280 (69, 451)

Fuselier, S.A., see Balsiger, H., et al. 187, 163

Fuselier, S.A., see Goldstein, B.E., et al. 187, 174

Fuselier, S.A., see Shelley, E.G., et al. 187, 304

Fusi Pecci, F., see Battistini, P., et al. 175, 358 (67, 447)

Fusi Pecci, F., see Bonoli, F., et al. 185, 25 Fusi Pecci, F., see Buonanno, R., et al. 173, 419 (67, 327)

1 431 1 6661, 1 1, 366 1340 144110, 10, 61 41. 173, 417 (07, 32

Gabriel, A.H., see Antonucci, E., et al. 180, 263 Gabriel, A.H., see Antonucci, E., et al. 188, 159

Gabriel, M.: Influence of the perturbation of the Reynold tensor on the stability of the solar 5-minute oscillations 175, 125

Gagliardi, L., see Falchi, A., et al. 187, 462

Gahm, G., see Sandell, G., et al. 181, 283

Gail, H.P., Sedlmayr, E.: Dust formation in stellar winds. III. Selfconsistent models for dust-driven winds around C-stars 171,197

Gail, H.-P., Sedlmayr, E.: Dust formation in stellar winds. V. The minimum mass loss rate for dust-driven winds 177, 186

Gal, O., de Muizon, M., Papoular, R., Pégourié, B.: A study of the silicate emission features of the IRAS low resolution spectra 183, 29

Galeev, A.A.: Encounters with comets: discoveries and puzzles in cometary plasma physics 187, 12

Galinski, T., see Feitzinger, J.V. 179, 249

Garcia, J.M., see Andersen, J., et al. 174, 107

García, J.M., see Clausen, J.V., et al. 176, 192 (68, 141)

García-Pelayo, J.M., see Aparicio, A., et al. 188, 267 (71, 297)

García-Pelayo, J.M., see Moles, M., et al. 186, 77

Garden, R., see Yamashita, T., et al. 177, 258

Gardner, F.F., see Roelfsema, P.R., et al. 175, 219

Gardner, F.F., see Wilson, T.L., et al. 186, L5

Garilli, B., see Maccagni, D., et al. 178, 21

Gary, D.E., see Walter, F.M., et al. 186, 241

Garzón, F., see Kidger, M.R., et al. 187, 363

Garzón, F., see Lázaro, C., et al. 187, 605

Gathier, R.: Properties of planetary nebulae. I. Nebular parameters and distance scales 188, 266 (71, 245)

Gatley, I., see Rainey, R., et al. 171, 252

Gatley, I., see Yamashita, T., et al. 177, 258

Gaudon, P., Cazenave, A.: Numerical experiments relative to primordial rotations of planets 173, 183

Gavazzi, G., Jaffe, W.: 50 kpc radio trails behind irregular galaxies in A 1367 186, L1

Gear, W.K., see Courvoisier, T.J.-L., et al. 176, 197

Geiger, I., see Chapellier, E., et al. 176, 255

Geiss, J.: Composition measurements and the history of cometary matter 187, 859

Geiss, J., Bürgi, A.: Thermal diffusion in partially ionized gases: the case of unequal temperatures 178, 286

Geiss, J., see Allen, M., et al. 187, 502

Geiss, J., see Balsiger, H., et al. 187, 163

Geiss, J., see Shelley, E.G., et al. 187, 304

Gelly, B., see Fossat, E., et al. 177, L47

Genova, F., Aubier, M.G.: High frequency limit and visibility of the non-Io and Io-dependent Jovian decameter radio emission 177, 303

Genova, F., Zarka, P., Barrow, C.H.: Voyager and Nançay observations of the Jovian radio-emission at different frequencies: solar wind effect and source extent 182, 159

Genova, R., see Vladilo, G., et al. 185, 233

Genty, V., see Fehrenbach, C., et al. 188, 267 (71, 263)

Genty, V., see Fehrenbach, C., et al. 188, 267 (71, 275)

Genzel, R., see Stacey, G.J., et al. 187, 451

Georgelin, Y.M., Boulesteix, J., Georgelin, Y.P., Laval, A., Marcelin, M.: Galactic structure around longitude *l*=317° determined from CIGALE observations 174, 257

Georgelin, Y.M., see Laval, A., et al. 175, 199

Georgelin, Y.M., see Lortet, M.-C., et al. 180, 65

Georgelin, Y.P., see Boulesteix, J., et al. 178, 91 Georgelin, Y.P., see Georgelin, Y.M., et al. 174, 257

Georgelin, Y.P., see Laval, A., et al. 175, 199

Georgelin, Y.P., see Lortet, M.-C., et al. 180, 65

Georgelin, Y., see Marcelin, M., et al. 179, 101

Gérard, E., Bockelée-Morvan, D., Bourgois, G., Colom, P., Crovisier, J.: 18-cm wavelength radio monitoring of the OH radical in comet P/Halley (1982i) 187, 455

Gérard, E., see Bockelée-Morvan, D., et al. 180, 253

Gérard, E., see Jacq, T., et al. 173, 347

Gerin, M., Wootten, H.A., Combes, F., Boulanger, F., Peters III, W.L., Kuiper, T.B.H., Encrenaz, P.J., Bogey, M.: Deuterated C₃H₂ as a clue to deuterium chemistry 173, L1

Gerin, M., see Combes, F., et al. 180, L13

Gesztelyi, L., see Mouradian, Z., et al. 183, 129

Geyer, E.H., see Jockers, K., et al. 187, 256

Gibson, D.M., see Rodonò, M., et al. 176, 267

Gibson, D.M., see Shore, S.N., et al. 182, 285

Gibson, D.M., see Walter, F.M., et al. 186, 241

Gillet, D., see Magain, P. 184, L5

Gilmore, A.C., see Leitherer, C., et al. 185, 121

Gilmozzi, R., see Feldman, P.D., et al. 187, 325

Gilmozzi, R., see Panagia, N., et al. 177, L25

Gilmozzi, R., see Wamsteker, W., et al. 177, L21

Giménez, A., see Andersen, J., et al. 174, 107

Giménez, A., see Cristiani et al. 177, L5

Giménez, A., see Clausen, J.V., et al. 176, 192 (68, 141)

Giménez, A., see Reglero, V., et al. 188, 270 (71 421)

Ginestet, N., see Pédoussaut, A., et al. 175, 136

Giommi, P., see Beuermann, K., et al. 175, L9

Giovanardi, C., see Altschuler, D.R., et al. 177, 22

Giovanardi, C., see Altschuler, D.R., et al. 178, 16

Giovanardi, G., Natta, A., Palla, F.: Numerical fits to the electron impact transition rate coefficients for atomic hydrogen as a function of electron temperature 183, 188 (70, 269)

Giovannelli, F., see Vittone, A.A., et al. 179, 157

Giovannini, G., Feretti, L., Gregorini, L.: Radio observations of the first ranked galaxies in A98, A115, A160, A278, and A568 178, 325 (69, 171)

Giovannini, G., see Feretti, L. 182, 15

Girard, T., Willson, L.A.: Winds in collision. III. Modeling the interaction nebulae of eruptive symbiotics 183, 247

Giraud, E.: Malmquist bias in the determination of the distance to the Hercules supercluster 180, 50

Giraud, E.: Malmquist bias, type effect and dispersion in the Tully-Fisher relation 174, 23

Giraud, E.: Note on comparative analysis of the H_I content in galaxies 178, 310

Giraud, E.: Systematics of the Tully-Fisher relation in the *B*, *V* system 180, 57

Gispert, R., see Emerich, C., et al. 187, 839

Gispert, R., see Moroz, V.I., et al. 187, 513

Giuricin, G., Mardirossian, F., Mezzetti, M.: Optical emissionline activity and radio continuum power in the nuclei of spiral galaxies 176, 1.75 Giuricin, G., see Ramella, M., et al. 188, 1

Glaccum, W., Moseley, S.H., Campins, H., Loewenstein, R.F.: Airborne spectrophotometry of P/Halley from 20 to 65 μm 187, 635

Glass, I.S., see Moorwood, A.F.M., et al. 184, 63

Glassgold, A.E., Mamon, G.A., Omont, A., Lucas, R.: Photochemistry and molecular ions in carbon-rich circumstellar envelopes 180, 183

Glaßmeier, K.H., Neubauer, F.M., Acuña, M.H., Mariani, F.: Low-frequency magnetic field fluctuations in comet P/Halley's magnetosheath: Giotto observations 187, 65

Glaßmeier, K.H., see Johnstone, A., et al. 187, 47

Göbel, M., see Schwarz, G., et al. 187, 847

Gogoshev, M., see Krasnopolsky, V.A., et al. 187, 707

Gogoshev, M., see Moreels, G., et al. 187, 551

Gogosheva, T., see Krasnopolsky, V.A., et al. 187, 707

Gogosheva, T., see Moreels, G., et al. 187, 551

Goicoechea, L.J., Martín-Mirones, J.M.: Magnitude-redshift test: cosmological inhomogeneity effects 186, 22

Goicoechea, L.J., Sanz, J.L.: The effect of pressure in the Local Supercluster and the anisotropy of the Hubble flow 177, 1

Golbasi, O., see Chollet, F., et al. 173, 419 (67, 297)

Goldbach, C., Nollez, G.: Oscillator strength measurements in the vacuum-ultraviolet. II. The strong 1260, 1277, 1329, 1463, 1561 and 1657 Å multiplets of neutral carbon 181, 203

Golden, R.L., Stephens, S.A., Mauger, B.G., Badhwar, G.D., Daniel, R.R., Horan, S., Lacy, J.L., Zipse, J.E.: Observation of cosmic ray positrons in the region from 5 to 50 GeV 188, 145

Goldman, I.: The nature of the companion of SN 1987 A 186, L3

Goldman, M.V., see Celnikier, L.M., et al. 181, 138 Goldman, M.V., see Dulk, G.A., et al. 173, 366

Goldsmith, P., see Bachiller, R., et al. 185, 297

Goldstein, B.E., Neugebauer, M., Balsiger, H., Drake, J., Fusclier, S.A., Goldstein, R., Ip, W.-H., Rettenmund, U., Rosenbauer, H., Schwenn, R., Shelley, E.G.: Giotto-IMS observations of ion-flow velocities and temperatures outside the magnetic cavity of comet P/Halley 187, 174

Goldstein, B.E., see Balsiger, H., et al. 187, 163 Goldstein, B.E., see Goldstein, R., et al. 187, 220

Goldstein, B.E., see Neugebauer, M., et al. 187, 21

Goldstein, B.E., see Shelley, E.G., et al. 187, 304

Goldstein, J.: The fate of the Earth in the red giant envelope of the Sun 178, 283

Goldstein, R., Young, D.T., Balsiger, H., Buehler, F., Goldstein,
 B.E., Neugebauer, M., Rosenbauer, H., Schwenn, R., Shelley,
 E.G.: Hot ions observed by the Giotto ion mass spectrometer
 at the comet P/Halley contact surface 187, 220

Goldstein, R., see Balsiger, H., et al. 187, 163

Goldstein, R., see Goldstein, B.E., et al. 187, 174

Goldstein, R., see Neugebauer, M., et al. 187, 21

Goldstein, R., see Schwenn, R., et al. 187, 160

Goldstein, R., see Shelley, E.G., et al. 187, 304

Golenetskii, S.V., see Mazets, E.P., et al. 187, 699

Golisch, W.F., see Hanner, M.S., et al. 187, 653

Göller, J.R., Grün, E., Maas, D.: Calibration of the DIDSY-IPM dust detector and application to other impact ionisation detectors on board the P/Halley probes 187, 693

Gombosi, T.I., see Gringauz, K.I., et al. 187, 191

Gombosi, T.I., see Gringauz, K.I., et al. 187, 287

Gombosi, T.I., see Verigin, M.I., et al. 187, 121

Gomes, R.S., Ferraz-Mello, S.: Comparison of Bretagnon's VSOP 82 theory with observations of Neptune 185, 327

Gomez de Castro, A.I., see Talavera, A. 181, 300

Gomez, M.T., Marmolino, C., Roberti, G., Severino, G.: Temporal variations of solar spectral line profiles induced by the 5-minute photospheric oscillation 188, 169

Gómez, R., see Kidger, M.R., et al. 187, 363

Gómez, R., see Navarro, R., et al. 174, 344

Gomez-Gonzalez, J., see Guélin, M., et al. 175, L5 Gonano, M., see Schwarz, G., et al. 187, 847

Gondoin, P., Mangeney, A., Praderie, F.: Solar-type giants: new X-ray detections from EXOSAT observations 174, 187

Gong (Kung), S.M., Wu, G.J., Chen, P.S., Zhang, X.F.: Chineseobservations of comet P/Halley in China and abroad 187, 594

Gonzalez Riesta, R., see Panagia, N., et al. 177, L25

Gonzalez-Bedolla, S., see Chapellier, E., et al. 176, 255

González-Riestra, R., Rego, M., Zamorano, J.: Star formation in the nucleus of the galaxy NGC 5253 186, 64

Goossens, M., see Hermans, D. 172, 85

Gopalakrishnan, N.V., see Bhat, P.N., et al. 171, 84

Goraya, P.S., Gurm, H.S.: Spectrophotometry of eight bright Be stars 180, 167

Gorgas, J., see Aragón, A., et al. 185, 97

Gorn, L., see Vaisberg, O.L., et al. 187, 753

Gosling, J.T., see Tsurutani, B.T., et al. 187, 97

Goss, W.M., see Dickel, H.R. 185, 271

Goss, W.M., see Higgs, L.A., et al. 181, 351

Goss, W.M., see Roelfsema, P.R., et al. 174, 232 Goss, W.M., see Roelfsema, P.R., et al. 175, 219

Gosset, E.: A three-dimensional extended Kolmogorov-Smirnov test as a useful tool in astronomy 188, 258

Gosset, E., Vreux, J.-M.: The possible appearance of a second period in the WN 5 star EZ Canis Majoris 178, 153

Gosset, E., see Brandi, E. 176, 194 (68, 283)

Gosset, E., see Brandi, E., et al. 175, 151

Gosset, E., see Manfroid, J., et al. 185, L7

Gottardi, M., see Santagata, N., et al. 183, 185 (70, 189)

Gottardi, M., see Santagata, N., et al. 183, 186 (70, 191)

Gottlieb, C.A., see Guélin, M., et al. 182, L37

Gottlieb, C.A., see Woodward, D.R., et al. 186, L14

Gottwald, M., Pietsch, W., Hasinger, G.: The central X-ray source in M33 175, 45

Gottwald, M., see Barr, P., et al. 176, 69

Götz, M.M.A., Alef, W., Preuss, E., Kellermann, K.I.: Strong structural variability in the lobe-dominated radio galaxy 3C111 176, 171

Gouguenheim, L., see Bottinelli, L., et al. 181, 1

Gouiffes, C., see Cristiani, S., et al. 177, L5

Gouiffes, C., see Danziger, I.J., et al. 177, L13 Gouiffes, C., see Schaefer, B.E., et al. 174, 338

Couttebrane B are France Borrers B et al. 172

Gouttebroze, P., see Freire Ferrero, R., et al. 173, 315

Gouttebroze, P., see Heinzel, P., et al. 183, 351

Grard, R.J.L., McDonnell, J.A.M., Grün, E., Gringauz, K.I.: Secondary electron emission induced by gas and dust impacts on Giotto, Vega-1 and Vega-2 in the environment of comet P/Halley 187, 785

Grard, R.J.L., see McDonnell, J.A.M., et al. 187, 719

Grard, R., see Mogilevsky, M., et al. 187, 80

Grard, R., see Pedersen, A., et al. 187, 297

Grard, R., see Trotignon, J.G., et al. 187, 83

Gratton, R.G.: The metal abundance of metal-rich globular clusters. III. NGC 288, NGC 362, NGC 5897, NGC 6352 and NGC 6362 179, 181

Gratton, R.G.: The metal abundance of metal-rich globular clusters. IV. Oxygen abundances 177, 177

Gratton, R.G., Ortolani, S.: Deep photometry of globular clusters. VI. E2 and E3 175, 357 (67, 373)

Gratton, R.G., Ortolani, S.: Deep photometry of globular clusters. X. The cluster GIC0435-59 in Reticulum 186, 364 (71, 131)

Gratton, R.G., Sneden, C.: Equivalent widths for field halo and disk stars 176, 193 (68, 193)

Gratton, R.G., Sneden, C.: Light element and Ni abundances in field disk and halo stars 178, 179

Gratton, R.G., Quarta, M.L., Ortolani, S.: Equivalent widths for giants in metal rich globular clusters. I 176, 188 (68, 21)

Gräve, R., see Sukumar, S., et al. 184, 71

Grec, G., see Fossat, E., et al. 177, L47

Green, D.W.E., Morris, C.S.: The visual brightness behavior of P/Halley during 1981-1987 187, 560

Green, R.F., see Liebert, J., et al. 175, 173

Green, S.F., see McDonnell, J.A.M., et al. 187, 719

Greenberg, J.M., see Chlewicki, G., et al. 173, 131

Greenberg, J.M., see Grim, R.J.A. 181, 155

Greenberg, J.M., see Minn, Y.K. 184, 315

Gregorini, L., see Giovannini, G., et al. 178, 325 (69, 171)

Gregorini, L., see Padrielli, L., et al. 173, 215 (67, 63)

Grenier, I.A., see Clear, J., et al. 174, 85

Greve, A., van Genderen, A.M.: VBLUW photometry of emission nebulae 174, 243

Grewing, M., see Bianchi, L. 181, 85

Grewing, M., see de Boer, K.S., et al. 177, L37

Grewing, M., see Fransson, C., et al. 177, L33

Grewing, M., see Skuppin, R., et al. 177, 228

Greybe, A., see Loiseau, N., et al. 178, 62

Gribov, B.E., Kecskeméty, K., Sagdeev, R.Z., Shapiro, V.D., Shevchenko, V.I., Somogyi, A.J., Szegö, K., Erdös, G., Eroshenko, E.G., Gringauz, K.I., Keppler, E., Marsden, R.G., Remizov, A.P., Richter, A.K., Riedler, W., Schwingenschuh, K., Wenzel, K.-P.: Stochastic Fermi acceleration of ions in the pre-shock region of comet P/Halley 187, 293

Grieco, A., see Cerruti, M.A., et al. 177, 350 (68, 351)

Griep, D.M., see Hanner, M.S., et al. 187, 653

Griffin, M.J., see Rainey, R., et al. 171, 252

Griffin, M.J., see Rainey, R., et al. 179, 237

Grigoryev, A.V., see Moroz, V.I., et al. 187, 513

Grim, R.J.A., Greenberg, J.M.: Photoprocessing of H₂S in interstellar grain mantles as an explanation for S₂ in comets 181, 155

Gringauz, K.I., Remizov, A.P., Verigin, M.I., Richter, A.K., Tátrallyay, M., Szegő, K., Klimenko, I.N., Apáthy, I., Gombosi, T.I., Szemerey, T.: Analysis of the electron measurements from the Plasmag-1 experiment on board Vega-2 in the vicinity of comet P/Halley 187, 287

Gringauz, K.I., Verigin, M.I., Richter, A.K., Gombosi, T.I., Szegő, K., Tátrallyay, M., Remizov, A.P., Apáthy, I.: Quasiperiodic features and the radial distribution of cometary ions in the cometary plasma region of comet P/Halley 187, 101

Gringauz, K.I., see Grard, R.J.L., et al. 187, 785

Gringauz, K.I., see Gribov, B.E., et al. 187, 293

Gringauz, K.I., see Verigin, M.I., et al. 187, 121

Grønbech, B.: Four-colour photometry of eclipsing binaries. XXVIIa. Light curves of AO Velorum 176, 195 (68, 317)

Grønbech, B., Andersen, J., Clausen, J.V., Helt, B.E., Jensen,

K.S.: Four-colour photometry of eclipsing binaries. XXVIII. Light curves of BW Aquarii 176, 195 (68, 323)

Grønbech, B., Andersen, J., Clausen, J.V., Nordström, B., Reipurth, B.: Four-colour photometry of eclipsing binaries. XXIX. Light curves of TZ Mensae 176, 196 (68, 331)

Groote, D., see Hagen, H.-J., et al. 183, L7

Grossmann-Doerth, U., Pahlke, K.-D., Schüssler, M.: Spurious variation of photospheric magnetic flux 176, 139

Gruenwald, R.B., Viegas-Aldrovandi, S.M.: The influence of relativistic electrons on a photoionized gaseous cloud 183, 185 (70, 143)

Gruenwald, R.B., see Singh, P.D. 178, 277

Grujić, R., see Teleki, G. 177, 313

Grün, E., see McDonnell, J.A.M., et al. 187, 719

Grün, E., see Göller, J.R., et al. 187, 693

Grün, E., see Grard, R.J.L., et al. 187, 785

Grün, E., see Lamy, P.L., et al. 187, 767

Gry, C., see Cassatella, A., et al. 177, L29

Gry, C., see de Boer, K.S., et al. 177, L37

Gry, C., see Wamsteker, W., et al. 177, L21

Güdür, N., Sezer, C., Gülmen, Ö.: A photometric study of DM Delphini 173, 216 (67, 87)

Guélin, M., Cernicharo, J., Kahane, C., Gomez-Gonzalez, J.,
 Walmsley, C.M.: Detection of a heavy radical in IRC+10216:
 The hexatriynyl radical C₆H? 175, L5

Guélin, M., Cernicharo, J., Navarro, S., Woodward, D.R., Gottlieb, C.A., Thaddeus, P.: New doublets in IRC + 10216: Vibrationally excited C₄H? 182, L37

Guélin, M., see Cernicharo, J. 176, 299

Guélin, M., see Cernicharo, J. 183, L10

Guélin, M., see Cernicharo, J., et al. 172, L5

Guélin, M., see Cernicharo, J., et al. 181, L1

Guélin, M., see Cernicharo, J., et al. 181, L9

Guélin, M., see Woodward, D.R., et al. 186, L14

Guiderdoni, B.: Evolution of spiral galaxies in the Virgo cluster.
II. Evidence for a threshold in star formation processes 172,
27

Guiderdoni, B., Rocca-Volmerange, B.: A model of spectrophotometric evolution for high-redshift galaxies 186, 1

Guiderdoni, B., see Rocca-Volmerange, B. 175, 15

Guilloteau, S., Omont, A., Lucas, R.: A new strong maser: HCN 176, L24

Guilloteau, S., see Bachiller, R., et al. 173, 324

Gull, G.E., see Herter, T., et al. 187, 629

Gülmen, Ö., see Güdür, N., et al. 173, 216 (67, 87)

Günter, T., see Cristiani, S., et al. 177, L5

Guo, Zi.-he, see Breger, M., et al. 175, 117

Gupta, S.K., see Bhat, P.N., et al. 178, 242

Gurm, H.S., see Goraya, P.S. 180, 167

Gurnett, D.A., see Scarf, F.L., et al. 187, 109

Guryan Yu, A., see Mazets, E.P., et al. 187, 699

Gurzadyan, G.A.: The classification of the shapes of stellar chromospheric emission lines 173, 284

Gustafson, B.A.S., see Mulholland, J.D. 171, L5

Gustafsson, B., see Olofsson, H., et al. 183, L13

Güsten, R., see Cox, P., et al. 181, L19

Güsten, R., see Henkel, C., et al. 185, 14

Güsten, R., see Krügel, E., et al. 185, 283

Güsten, R., see Menten, K.M., et al. 177, L57

Güsten, R., see Serabyn, E. 184, 133

Haarala, S., see Teräsranta, H., et al. 186, 364 (71, 125) Haarla, S., see Salonen, E., et al. 185, 356 (70, 409) Haas, M., see Leinert, Ch. 182, L47

Haberl, F., see Barr, P., et al. 176, 69

Habets, G.M.H.J.: An evolutionary scenario for the formation of highly eccentric Be/X-ray binaries 184, 209

Habets, G.M.H.J.: The evolution of helium stars in the mass range 2.0 to 4.0 $M\mathcal{F}$: the evolutionary program 178, 326 (69, 183)

Hadjidimitriou, D., see Kontizas, M., et al. 177, 352 (68, 493)

Haefner, R.: Four-colour photometry of the early-type eclipsing binary AL Scl 178, 327 (69, 295)

Haefner, R., Skillen, I., de Groot, M.: Absolute parameters of the early-type double-lined eclipsing binary AL Sculptoris (HD 224113) 179, 141

Haefner, R., see Metz, K. 187, 539

Haensel, P., Jerzak, A.J.: Mean free paths of non-degenerate neutrinos in neutron star matter 179, 127

Haensel, P., see Zdunik, J.L., et al. 172, 95

Hagen, H.-J., Groote, D., Engels, D., Haug, U., Toussaint, F., Reimers, D.: Discovery of a magnetic DA white dwarf with distinct H β and H α Zeeman triplets 183, L7

Hagen, H.-J., Hempe, K., Reimers, D.: A study of UV spectra of ζ Aur/VV Cep stars. X. Mass-loss of α Sco A from highresolution IUE spectra of α Sco B 184, 256

Häggkvist, L., Oja, T.: Narrow-band photometry of late-type stars. II 176, 194 (68, 259)

Hahn, G., see Lagerkvist, C.-I., et al. 182, 359 (70, 21)

Haisch, B.M., Butler, C.J., Doyle, J.G., Rodono, M.: Rotational modulation and flares on RS CVn and BY Dra-type stars. V. EXOSAT and IUE observations of a flare on EQ Pegasi 181, 96

Hajduk, A.: Meteoroids from comet P/Halley. The comet's mass production and age 187, 925

Hajduk, A., see Hajduková, M., et al. 187, 919

Hajduková, M., Hajduk, A., Cevolani, G., Formiggini, C.: The P/Halley meteor showers in 1985–1986 187, 919

Hakkila, J., McNamara, B.J.: Near-infrared excesses of barium stars 186, 255

Halbwachs, J.L.: Distribution of mass ratios in spectroscopic binaries 183, 234

Halliday, I.: The spectra of meteors from comet P/Halley 187, 921

Hamann, W.-R., Schmutz, W.: Computed He II spectra for Wolf-Rayet stars: a grid of models 174, 173

Hamann, W.R., see Bouchet, P., et al. 177, L9

Hameury, J.M., King, A.R., Lasota, J.P.: Soft X-ray transients and the evolution of low mass X-ray binaries 171, 140

Hammel, H.B., Telesco, C.M., Campins, H., Decher, R., Storrs, A.D., Cruikshank, D.P.: Albedo maps of comets P/Halley and P/Giacobini-Zinner 187, 665

Hammer, F., see Soucail, G., et al. 184, L7

Hamuy, M., Maza, J.: UBVRI photometry of active galaxies. I. Observations 177, 350 (68, 383)

Hanami, H., Sakashita, S.: Structure and kinematics of stellar wind bubbles 181, 343

Hanasz, J., see Schreiber, R. 188, 178

Hanawa, T.: A sufficient condition for stability of a rotating body 179, 383

Hanawa, T.: The dynamical instability of a rotating cylinder as a model for a Keplerian disk 185, 160

Handa, T., see Fürst, E., et al. 180, 279 (69, 403)

Hänel, A.: The kinematics of H_{II} regions. I. The velocity field of the Lagoon nebula (M8) 176, 338 Hänel, A.: The kinematics of H_{II} regions. II. The large-scale velocity field of M 42/43 and NGC 1977 176, 347

Hänel, A., see Jockers, K., et al. 187, 256

Hanner, M.S., Tokunaga, A.T., Golisch, W.F., Griep, D.M., Kaminski, C.D.: Infrared emission from P/Halley's dust coma during March 1986 187, 653

Hanner, M.S., see McDonnell, J.A.M., et al. 187, 719

Hansel, D., Ramani, A., Pellat, R.: Role of baryonic density on radiation fluctuation in an ino-dominated universe 171, 1

Hansen, L., Nørgaard-Nielsen, H.U., Jørgensen, H.E.: Morphology of extended emission-line regions associated with radio galaxies 188, 271 (71, 465)

Hanslmeier, A., see Lustig, G. 172, 332

Hanslmeier, A., see Pfleiderer, J., et al. 178, 324 (69, 117)

Hanuschik, R.W.: High-resolution emission-line spectroscopy of Be stars. II. Fe II and other weak emission lines 173, 299

Hanuschik, R.W., Dachs, J.: The Hα velocity structure during the first month of SN 1987A in the LMC 182, L29

Harnden FR, Jr., see Schmitt, J.H.M.M., et al. 179, 193

Harris, R.W., see Corso, G.J., et al. 183, L9

Harrison, R.A.: Solar soft X-ray pulsations 182, 337

Hartl, H., Weinberger, R.: Planetary nebulae of low surface brightness: gleanings from the "POSS" 180, 281 (69, 519)

Harvey, J.W., see Stenflo, J.O., et al. 171, 305

Harvey, J.W., see Stenflo, J.O., et al. 173, 167

Harvey, P.M., see Campins, H., et al. 187, 632

Haschick, A.D., see Rodriguez, L.F., et al. 186, 319

Hascoët, J.-C., see Chollet, F., et al. 173, 419 (67, 297)

Hascoët, J.-C., see Chollet, F., et al. 186, 363 (71, 109)

Hashimoto, M., see Arai, K., et al. 179, 17

Hasinger, G.: A classification of fast quasi-periodic X-ray oscillators: Is 6 Hz a fundamental frequency? 186, 153

Hasinger, G., see Gottwald, M., et al. 175, 45

Hasse, I., see Chavarría-K, C., et al. 171, 216

Hau, Peng.-Jiu., see Xie, Guang.-Zhong., et al. 173, 214 (67, 17)
 Hauck, B.: Shell stars in the Geneva photometric system 177, 193

Haug, E.: Electron-positron bremsstrahlung in thermal plasmas: simple analytical fits 178, 292

Haug, U., see Hagen, H.-J., et al. 183, L7

Hauschildt, M.: The Perseus supercluster at low galactic latitudes 184, 43

Hawkins, M.R.S., Véron, P.: A new, distant dwarf nova: 2138-453 182, 271

Hawley, S.L., see Pettersen, B.R. 181, 402

Hayakawa, S., see Börner, G., et al. 182, 63

Hayashi, S.S., see Rainey, R., et al. 171, 252

Hayashi, S.S., see White, G.J., et al. 173, 337

Haynes, R.F., see Caswell, J.L. 171, 261

Haynes, R.F., see Loiseau, N., et al. 178, 62

He, X.T., see Machara, H., et al. 178, 221

Heap, S.R., Lindler, D.J.: Deconvolution of a pre-outburst picture of SN 1987 A 185, L10

Hearn, A.G.: Models for stellar coronae: thin coronae with radiative forces 185, 247

Hearn, D.R., see Priedhorsky, W., et al. 173, 95

Hearnshaw, J., see Leitherer, C., et al. 185, 121

Heath, J., see Johnstone, A., et al. 187, 47

Heath, J., see Johnstone, A.D., et al. 187, 25

Heck, A., Mathys, G., Manfroid, J.: Photometric variability of some CP stars 182, 360 (70, 33)

Heck, A., see Manfroid, J., et al. 176, 180

Heck, A., see Murtagh, F. 176, 191 (68, 113)

Hecquet, J., Coupinot, G., Maucherat, A.J.: Markarian 297 knots 183, 13

Heenen, P.H., see Lassaut, M., et al. 183, L3

Heiles, C., see Sandell, G., et al. 179, 255

Hein, H., see Cernicharo, J., et al. 181, L9

Heinzel, P., Gouttebroze, P., Vial, J.-C.: Formation of the hydrogen spectrum in quiescent prominences: one-dimensional models with standard partial redistribution 183, 351

Heise, J., Mewe, R., Kruszewski, A., Chlebowski, T.: The 67-min X-ray period of EX Hydrae observed with the *EINSTEIN* observatory **183**, 73

Heise, J., see van der Woerd, H., et al. 182, 219

Heithausen, A., Mebold, U., de Vries, H.W.: A survey of formaldehyde in high galactic latitudes 179, 263

Heithausen, A., see Mebold, U., et al. 180, 213

Hejlesen, P.M.: Studies in stellar evolution. III. The internal structure constants 178, 326 (69, 249)

Helin, E.F., see Sekanina, Z., et al. 187, 645

Helt, B.E.: Four-colour photometry of eclipsing binaries. XXVI A. RY Aqr: a low-mass semidetached system with intrinsic variability 172, 155

Helt, B.E.: Four-colour photometry of eclipsing binaries. XXVI B. Light curves of RY Aqr. 176, 193 (68, 187)

Helt, B.E., see Cristiani, S., et al. 177, L5

Helt, B.E., see Grønbech, B., et al. 176, 195 (68, 323)

Hemmerich, A.: Comments on smoothing cosmologies 185,

Hempe, K., see Hagen, H.-J., et al. 184, 256

Henkel, C., Güsten, R., Baan, W.A.: Rotationally excited OH in megamaser galaxies 185, 14

Henkel, C., Jacq, T., Mauersberger, R., Menten, K.M., Steppe, H.: The detection of extragalactic methanol 188, L1

Henkel, C., Mauersberger, R., Wilson, T.L., Snyder, L.E., Menten, K.M., Wouterloot, J.G.A.: Deuterated water in Orion-KL and NGC 7538 182, 299

Henkel, C., Wilson, T.L., Mauersberger, R.: A multilevel study of ammonia in star forming regions. II. G 34.3+0.2, a new "hot core" 182, 137

Henkel, C., see Cox, P., et al. 181, L19

Henkel, C., see Mauersberger, R., et al. 173, 352

Henkel, C., see Walmsley, C.M., et al. 172, 311

Hénon, M., see Petit, J.-M. 173, 389

Hénon, M., see Petit, J.-M. 188, 198

Hénoux, J.C., Somov, B.V.: Generation and structure of the electric currents in a flaring activity complex 185, 306

Hénoux, J.C., see Aboudarham, J. 174, 270

Henrichs, H.F., see Brown, J.C. 182, 107

Hensler, G., see Kley, W. 172, 124

Herbst, E., see Millar, T.J., et al. 183, 109

Hermans, D., Goossens, M.: The Alfvén-gravity spectrum of an incompressible slab 172, 85

Hermsen, W., Bennett, K., Bloemen, J.B.G.M., Buccheri, R.,
 Jansen, F.A., Mastichiadis, A., Mayer-Hasselwander, H.A.,
 Özel, M.E., Pollock, A.M.T., Strong, A.W.: High-energy gamma-ray and hard X-ray-observations of Cyg X-3 175, 141

Hermsen, W., see Clear, J., et al. 174, 85

Hermsen, W., see Strong, A.W., et al. 173, 418 (67, 283)

Hermsen, W., see Walmsley, C.M., et al. 172, 311

Hernanz, M., see Isern, J., et al. 172, L23

Herrero, A.: Improved NLTE profiles of HeII lines in hot stars including their overlap with hydrogen 186, 231

Herrero, A.: Improved non-LTE Balmer-line profiles for hot stars 171, 189 Herrwerth, I., see Lämmerzahl, P., et al. 187, 169

Hersé, M., see Moreels, G., et al. 187, 551

Hershberger, R.L., see Winters, R.R., et al. 171, 9

Herter, T., Campins, H., Gull, G.E.: Airborne spectrophotometry of P/Halley from 16 to 30 μm 187, 629

Heydari-Malayeri, M., Niemela, V.S., Testor, G.: The LMC H_{II} regions N 11 C and E and their stellar contents 184, 300

Heynderickx, D., see Cristiani, S., et al. 177, L5

Heyvaerts, J., see Bonazzola, S., et al. 172, 293

Hick, P., Stevens, G.: Approximate solutions to the cosmic ray transport equation: the maximum entropy method 172, 350

Higgs, L.A., Vallée, J.P., Albinson, J.S., Batrla, W., Goss, W.M.: Further observations of the peculiar galactic radio source BG 2107+49 181, 351

Hill, G., Fisher, W.A.: Studies of early-type variable stars. IV. The orbit and physical dimensions for V 373 Cas 171, 123

Hillebrandt, W., Höflich, P., Kafka, P., Müller, E., Schmidt, H.U., Truran, J.W.: Indications for black hole formation from neutrino observations in SN 1987A 180, L20

Hillebrandt, W., Höflich, P., Kafka, P., Müller, E., Schmidt, H.U., Truran, J.W., Wampler, J.: Evidence for a finite electron neutrino rest mass from SN 1987 A 177, L41

Hillebrandt, W., Höflich, P., Schmidt, H.U., Truran, J.W.: The interaction of the UV burst of Supernova 1987 A with a nearby cloud: a possible explanation of the speckle images 186. L9

Hillebrandt, W., see Wampler, E.J., et al. 182, L51

Hilton, J., see Rainey, R., et al. 179, 237

Hirao, K., Itoh, T.: The Sakigake/Suisei encounter with comet P/Halley 187, 39

Hirao, K., see Mukai, T., et al. 187, 129

Hirao, K., see Saito, T., et al. 187, 209

Hirao, K., see Takahashi, S., et al. 187, 94

Hjalmarson, A., see Millar, T.J., et al. 182, 143

Hjellming, R.M., see Felli, M., et al. 182, 313 Hoang, S., see Dulk, G.A., et al. 173, 366

Hoang-Binh, D., Brault, P., Picart, J., Tran-Minh, N., Vallée,
 O.: Ion-collision broadening of solar lines in the far-infrared and submillimeter spectrum 181, 134

Hobbs, L.M., see Ferlet, R., et al. 185, 267

Hodapp, K.-W.: A polarimetric study of the Mon R 2 star-forming region 172, 304

Hodapp, K.-W., see Eiroa, C., et al. 179, 171

Hodges, R.R., see Eberhardt, P., et al. 187, 435

Hodges, R.R., see Eberhardt, P., et al. 187, 481

Hodges, R.R., see Lämmerzahl, P., et al. 187, 169

Hoeppe, G.R.: Pulsational long-term behaviour of the cool oxygen-rich Mira variable R Leonis. II. Results and discussion 178, 131

Hoeppe, G.R.: Pulsational long-term behaviour of the cool oxygen-rich Mira variables R Leonis. I. The data 177, 351 (68, 419)

Hoffman, J.H., see Eberhardt, P., et al. 187, 435

Hoffman, J.H., see Eberhardt, P., et al. 187, 481

Hoffman, J.H., see Lämmerzahl, P., et al. 187, 169

Höflich, P., Wehrse, R.: NLTE models for cocoon stars 185, 107

Höflich, P., see Hillebrandt, W., et al. 177, L41

Höflich, P., see Hillebrandt, W., et al. 180, L20

Höflich, P., see Hillebrandt, W., et al. 186, L9

Höflich, P., see Wampler, E.J., et al. 182, L51

Høg, E., see Mauder, H. 185, 349

Hollis, J.M., see Taylor, A.R., et al. 183, 38

Holman, G.D., see Brosius, J.W., et al. 187, 267

Holweger, H., see Lemke, M. 173, 375

Hooghoudt, B.G., see Baars, J.W.M., et al. 175, 319

Hopp, U., Schulte-Ladbeck, R.E.: The stellar content and morphology of the dwarf irregular galaxy Holmberg IX 188, 5

Horan, S., see Golden, R.L., et al. 188, 145

Horedt, G.P.: Approximate analytical solutions of the Lane-Emden equation in N-dimensional space 172, 359

Horedt, G.P.: Topology of the Lane-Emden equation 177, 117

Hough, J.H., see Kikuchi, S., et al. 187, 689

Hough, J.H., see Yamashita, T., et al. 177, 258

Houziaux, L., see Andrillat, Y. 173, 217 (67, 111)

Hovenier, J.W.: A unified treatment of polarized light emerging from a homogeneous plane-parallel atmosphere 183, 363

Hovenier, J.W., see de Haan, J.F., et al. 183, 371

Howarth, I.D., see Stickland, D.J., et al. 184, 185

Hoyng, P.: Turbulent transport of magnetic fields. I. A simple mechanical model 171, 348

Hoyng, P.: Turbulent transport of magnetic fields. II. The role of fluctuations in kinematic theory 171, 357

Hron, J.: Kinematics of young open clusters and the rotation curve of our Galaxy 176, 34

Hsieh, K.C., Curtis, C.C., Fan, C.Y., Hunten, D.M., Ip, W.-H., Keppler, E., Richter, A.K., Umlauft, G., Afonin, V.V., Erö J, Jr., Somogyi, A.J.: Anisotropy of the neutral gas distribution of comet P/Halley deduced from NGE/Vega-1 measurements 187, 375

Hsieh, K.C., see Curtis, C.C., et al. 187, 360

Hu, Y.Q., see Nakagawa, Y., et al. 179, 354

Huang, Lin., see Breger, M., et al. 175, 117

Huang, L.K., see Finkenthal, M., et al. 184, 337

Huang, S.-N., Stewart, P.: Shell generation in galaxies 174, 13

Huang, Y.W., see Maehara, H., et al. 178, 221

Hubery, I.: Probabilistic interpretation of radiative transfer. I. The $\sqrt{\epsilon}$ -law 185, 332

Huben, I.: Probabilistic interpretation of radiative transfer. II. Rybicki equation 185, 336

Hubert, A.M., Floquet, M., Chambon, M.T.: Additional constraints on cool-disk models of Be starś based on long observational sequences in the visual range 186, 213

Hubert, A.M., Floquet, M., Chauville, J., Chambon, M.T.:
 Spectral features of the B2e star EW Lac before and during the variable shell phase 185, 357 (70, 443)

Huchtmeier, W.K., see Richter, O.-G. 177, 351 (68, 427) Huchtmeier, W.K., see Richter, O.-G., et al. 171, 33

Hudec, R., Borovička, J., Wenzel, W., Atteia, J.-L., Barat, C., Hurley, K., Niel, M., Vedrenne, G., Evans, W.D., Fenimore, E.E., Klebesadel, R.W., Laros, J.G., Cline, T., Desai, U., Teegarden, B., Estulin, I., Zenchenko, V., Kuznetsov, A., Kurt, V.: Search for optical bursts from gamma-ray bursters. I 175, 71

Huebner, W.F., see Keller, H.U., et al. 187, 807

Huebner, W.F., see Schwarz, G., et al. 187, 847

Huebner, W.F., see Wegmann, R., et al. 187, 339

Hughes, D.W.: Comet P/Halley dust characteristics: a comparison between Orionid and Eta Aquarid meteor observations and those from the flyby spacecraft 187, 879

Hughes, D.W., see Keller, H.U., et al. 187, 807

Hughes, D.W., see McDonnell, J.A.M., et al. 187, 719

Huguenin, D., see Donas, J., et al. 180, 12

Huille, S., see Spite, M., et al. 188, 274 (71, 591)

Huisong, T., Xuefu, L.: Measurements and study of rotational velocities in RS CVn star systems 172, 74 Huisong, T., Xuefu, L.: Measurements and study of rotational velocities in RS CVn star systems 172, 74

Hulsbosch, A.N.M.: A survey for H_I in voids 180, 280 (69,

Humblet, J., Fowler, W.A., Zimmerman, B.A.: Approximate penetration factors for nuclear reactions of astrophysical interest 177, 317

Hummel, E., Jörsäter, S., Lindblad, P.O., Sandqvist, A.: The central region of NGC 613. Evidence for an accelerated collimated outflow 172. 51

Hummel, E., van der Hulst, J.M., Keel, W.C.: Circumnuclear star formation in the central region of the barred spiral galaxy NGC 1097 172, 32

Hummel, E., van der Hulst, J.M., Keel, W.C., Kennicutt R.C., Jr.: The effects of interactions on spiral galaxies. III. A radio continuum survey of galactic nuclei at 1.49 GHz 185, 358 (70, 517)

Hunten, D.M., see Curtis, C.C., et al. 187, 360

Hunten, D.M., see Hsieh, K.C., et al. 187, 375

Huntress, W.T., see Balsiger, H., et al. 187, 163

Huntress, W., see Allen, M., et al. 187, 502

Huovelin, J., Piirola, V., Vilhu, O., Efimov, Y.S., Shakhovskoy, N.M.: Five-colour (*UBVRI*) photopolarimetry of FK Comae and HD 199178 176, 83

Hurley, K., see Hudec, R., et al. 175, 71

Hutsemékers, D., Surdej, J.: Revisited mass-loss rates for the nuclei of the planetary nebulae NGC 6210, NGC 6826 and NGC 6543: the first order moment W_1 of subordinate line profiles 173, 101

Hutsemékers, D., see Surdej, J. 177, 42

Hynds, R.J., see Richardson, I.G., et al. 187, 276

Hynds, R.J., see Sanderson, T.R., et al. 187, 125

Iannicola, G., Kalloghlian, A., Nanni, D., Vignato, A.: B and V photometry of two distant galaxy clusters with 6 m telescope plates 182, 189

Ibrahim Denis, A.: A study of the efficiency of some inversion techniques applied to a simple model of the Moon 184, 373

Icke, V., van de Weygaert, R.: Fragmenting the universe. I. Statistics of two-dimensional Voronoi foams 184, 16

Igenbergs, E., see McDonnell, J.A.M., et al. 187, 719

Iijima, T., Vittone, A., Chochol, D.: Spectroscopic and photometric studies of the symbiotic star AG Dra 178, 203

Illiano, J.M., see Eberhardt, P., et al. 187, 435

Illiano, J.M., see Eberhardt, P., et al. 187, 481

Illiano, J.M., see Lämmerzahl, P., et al. 187, 169

Ilovaisky, S.A., Aurière, M., Chevalier, C., Koch-Miramond, L., Cordoni, J.P., Angebault, L.P.: CCD photometry of AC 211/X 2127+119: The 8.5 h period of the X-ray binary in the M 15 globular cluster 179, L1

Ilovaisky, S.A., see Chevalier, C. 172, 167

Ilovaisky, S., see van Paradijs, J., et al. 184, 201

Ilyinskii, V.N., see Mazets, E.P., et al. 187, 699

Imbert, M.: Determination of the radii of Cepheids. IV. Dimensions of HV 879, HV 899, HV 909, HV 2257, HV 2338, HV 2827 and the distance of the Large Magellanic Cloud (Text in French) 175, 30

Imbert, M.: Photoelectric radial velocities of eclipsing binaries. III. Orbital elements of AN Cam (Text in French) 173, 218 (67, 161)

Imbert, M.: Photoelectric radial velocities of eclipsing binaries.
IV. Orbital elements of BW Aqr (Text in French) 180, 278
(69, 397)

Imbert, M.: Photoelectric radial velocities of eclipsing binaries. V. Orbital elements of V 643 Ori 186, 363 (71, 69)

Imbert, M., see Maurice, E., et al. 175, 358 (67, 423)

Incimen, E., see Kocer, D., et al. 182, 360 (70, 49)

Infante, L.: A faint object processing software: description and testing 183, 177

Inogamov, N.A., see Sagdeev, R.Z., et al. 187, 179

Iovino, A., see Barbieri, C., et al. 175, 361 (67, 551)

Iovley, M., see Vaisberg, O.L., et al. 187, 753

Ip, W.-H., Schwenn, R., Rosenbauer, H., Balsiger, H., Neugebauer, M., Shelley, E.G.: An interpretation of the ion pile-up region outside the ionospheric contact surface 187, 132

Ip, W.-H., see Allen, M., et al. 187, 502

Ip, W.-H., see Balsiger, H., et al. 187, 163

Ip, W.-H., see Curtis, C.C., et al. 187, 360

Ip, W.-H., see Goldstein, B.E., et al. 187, 174

Ip, W.-H., see Hsieh, K.C., et al. 187, 375

Ip, W.-H., see Kömle, N.I. 187, 405

Ip, W.-H., see Scarf, F.L., et al. 187, 109

Ip, W.-H., see Schwenn, R., et al. 187, 160

Ip. W.-H., see Shelley, E.G., et al. 187, 304

Ipavich, F.M., see Tsurutani, B.T., et al. 187, 97

Irvine, W.M., see Schloerb, F.P., et al. 187, 475

Irwin, A.W.: Refined diatomic partition functions. I. Calculational methods and H2 and CO results 182, 348

Isern, J., Hernanz, M., Canal, R., Labay, J., Mochkovitch, R.: The origin of QPO sources 172, L23

Isern, J., see López, R., et al. 184, 249

Ishida, K., Weinberger, R.: Two senile nearby planetary nebulae and the local PN population 178, 227

Israel, F.P.: High resolution 5 GHz flux-densities of sources in M 31 176, 191 (68, 109)

Isserstedt, J., Schindler, R.: Late-type galaxies. The shapes of the spiral arm filaments (Text in German) 175, 23

Itoh, M., see Kaburaki, O. 172, 191

Itoh, T., see Hirao, K. 187, 39

Iye, M., Ulrich, M.-H., Peimbert, M.: High resolution spectrum of the starburst galaxy Tololo 1924-416 (= ESO 338-IG 04) 186, 84

Iyengar, K.V.K.: Study of IRAS observations of newly classified planetary nebulae 176, 190 (68, 103)

Iyengar, K.V.K., see Verma, R.P., et al. 177, 346

Jackson, W.M., see Feldman, P.D., et al. 187, 325

Jackson, W.M., see Prisant, M.G. 187, 489

Jacobson, R.A., see Laskar, J. 188, 212

Jacq, T., Baudry, A., Despois, D., Gérard, E., Johansson, L.E.B.: A search for CH abundance variations towards L134 173, 347 Jacq, T., see Henkel, C., et al. 188, L1

Jaffe, W.: Limits on the cool gas content of NGC 1275 and M87 171, 378

Jaffe, W., see Gavazzi, G. 186, L1

Jäger, B., see Wilson, T.L. 184, 291

Jägers, W.J.: 0.6 GHz mapping of extended radio galaxies. I. Edge-brightened double sources 175, 357 (67, 395)

Jägers, W.J.: 0.6 GHz mapping of extended radio galaxies. II. Edge-darkened double sources 186, 363 (71, 75)

Jägers, W.J.: 0.6 GHz mapping of extended radio galaxies. III. 3C 66B, NGC 1265, 3C 129, DA 240, 3C 236, 4C 48.29, IC 708 & IC 711, 4CT 51.29.1, 3C 310, Abell 2256, 3C 402 and 3C 465 188, 275 (71, 603)

Jakobsen, P., de Vries, J.S., Paresce, F.: The IRAS cirrus and the diffuse ultraviolet background 183, 335

Jamar, C., see Keller, H.U., et al. 187, 807

Jannot, Y., see Fairhead, L., et al. 176, 190 (68, 81)

Janot-Pacheco, E., Motch, C., Mouchet, M.: An optical study of the Be/X-ray transient HDE 245770/A 0535 + 26 177, 91

Janot-Pacheco, E., see Motch, C. 182, L55

Jansen, F.A., see Hermsen, W., et al. 175, 141

Jarvis, B., see Danziger, I.J., et al. 177, L13

Jaschek, C., see Jaschek, M. 171, 380

Jaschek, M., Jaschek, C.: The ultraviolet gallium stars 171.

Jasniewicz, G., Duquennoy, A., Acker, A.: The nucleus of LT-5: an unusual triple system? 180, 145

Jenkner, H., Maitzen, H.M.: Photoelectric search for CP2-stars in open clusters. X. NGC 2232, NGC 2343, Cr 140, and Tr 10 188, 266 (71, 255)

Jensen, K.S., see Andersen, J., et al. 176, 196 (68, 347)

Jensen, K.S., see Grønbech, B., et al. 176, 195 (68, 323)

Jerzak, A.J., see Haensel, P. 179, 127

Jewitt, D.C., see Meech, K.J. 187, 585

Jiang, Shi.-yang, see Breger, M., et al. 175, 117

Jimenez, A., Pallé, P.L., Roca Cortés, T., Domingo, V., Korzennik, S.: Ground-based measurements of solar intensity oscillations 172, 323

Jockers, K., Geyer, E.H., Rosenbauer, H., Hänel, A.: Observations of ions in comet P/Halley with a focal reducer 187,

Jockers, K., see Coates, A.J., et al. 187, 55

Jockers, K., see Johnstone, A.D., et al. 187, 25

Jockers, K., see Thomsen, M.F., et al. 187, 141

Jockers, K., see Wilken, B., et al. 187, 153

Johansson, L.: A study of the starburst galaxy ESO 495-G21 = He2-10 182, 179

Johansson, L.E.B., see Jacq, T., et al. 173, 347

Johansson, L.E.B., see Lindqvist, M., et al. 172, L3

Johansson, L.E.B., see Truong-Bach, et al. 176, 285

Johnson, R.E., Cooper, J.F., Lanzerotti, L.J., Strazzulla, G.: Radiation formation of a non-volatile comet crust 187, 889

Johnston, K.J., see de Vegt, C., et al. 179, 322 Johnston, K.J., see Diamond, P.J., et al. 174, 95

Johnston, K.J., see Eckart, A., et al. 173, 217 (67, 121)

Johnston, K.J., see Kühr, H., et al. 188, 272 (71, 493)

Johnstone, A.D., Glassmeier, K., Acuña, M., Borg, H., Bryant, D., Coates, A., Formisano, V., Heath, J., Mariani, F., Musmann, G., Neubauer, F., Thomsen, M., Wilken, B., Winningham, J.: Waves in the magnetic field and solar wind flow outside the bow shock at comet P/Halley 187, 47

Johnstone, A.D., Coates, A.J., Heath, J., Thomsen, M.F., Wilken, B., Jockers, K., Formisano, V., Amata, E., Winningham, J.D., Borg, H., Bryant, D.A.: Alfvénic turbulence in the solar wind flow during the approach to comet P/Halley 187, 25

Johnstone, A.D., see Coates, A.J., et al. 187, 55

Johnstone, A.D., see Thomsen, M.F., et al. 187, 141

Johnstone, A.D., see Wilken, B., et al. 187, 153

Joly, M.: Formation of low ionization lines in active galactic nuclei 184, 33

Jordan, S., Koester, D., Wulf-Mathies, C., Brunner, H.: EUV photometry of DA white dwarfs with EXOSAT 185, 253

Jorden, P.R., see McKeith, C.D., et al. 173, 204

Jordi, C., see Rosselló, G., et al. 173, 217 (67, 157)

Jørgensen, H.E., see Hansen, L., et al. 188, 271 (71, 465)

Jørgensen, H.E., see West, R.M., et al. 177, L1

Jörsäter, S., see Hummel, E., et al. 172, 51

Joshi, U.C., Deshpande, M.R., Sen, A.K., Kulshrestha, A.: Po-

Au

Kli

Kli

Kn

Kn

Kn

Kr

Kr

Kr

Kı

K

K

K

K

K

K

K

K

K

K

larization investigations in four peculiar supergiants with high IR excess 181, 31

Joshi, U.C., see Kulshrestha, A., et al. 188, 273 (71, 565)

Journet, A., see Laclare, F. 178, 323 (69, 77)

Joy, M., see Campins, H., et al. 187, 632

Joyce, R.R., see Brooke, T.Y., et al. 187, 621

Joyce, R.R., see Knacke, R.F., et al. 187, 625

Juchniewicz, J., see Savin, S., et al. 187, 89

Junkes, N., Fürst, E., Reich, W.: A survey of linear polarization along the Galactic Plane. The area $49 \le l \le 76^{\circ}, -15 \le b \le 15$ **180**, 280 (69, 451)

Kaburaki, O., Itoh, M.: Accretion-driven jets from young stars 172, 191

Kafka, P., see Hillebrandt, W., et al. 177, L41

Kafka, P., see Hillebrandt, W., et al. 180, L20

Kahane, C., see Bachiller, R., et al. 173, 324

Kahane, C., see Cernicharo, J., et al. 181, L9

Kahane, C., see Guélin, M., et al. 175, L5

Kähler, H., Matraka, B., Weigert, A.: Contact binaries. III. A survey of the equilibrium solutions and their stability 172, 179

Kaifu, N., see Rainey, R., et al. 171, 252

Kaifu, N., see White, G.J., et al. 173, 337

Kaiser, D.: Spectral energy distributions of Be stars. I. Measurements of 26 southern and equatorial stars 173, 416 (67, 203)

Kalkofen, W., see Ulmschneider, P., et al. 177, 292

Kalloghlian, A., see Iannicola, G., et al. 182, 189

Kaminski, C.D., see Hanner, M.S., et al. 187, 653

Kandemir, G., see Fenkart, R., et al. 173, 417 (67, 245)

Karaali, S., see Fenkart, R. 178, 322 (69, 33)

Karoji, H., see Perrin, M.-N. 172, 235

Katgert, P., see Oort, M.J.A., et al. 179, 41

Katgert, P., see Rhee, G.F.R.N. 183, 217

Katz, J.I.: Arcs, light echoes, and supergalaxies 182, L19

Kawabata, K., see Tatematsu, K., et al. 184, 279

Kawakami, H., see Watanabe, J., et al. 187, 229

Kayser, R., see Schramm, T. 174, 361

Kazès, I., see Crutcher, R.M., et al. 181, 119

Kecskeméty, K., see Gribov, B.E., et al. 187, 293

Keel, W.C.: The stellar population in the Wolf-Rayet knot in NGC 5430 172, 43

Keel, W.C., see Hummel, E., et al. 172, 32

Keel, W.C., see Hummel, E., et al. 185, 358 (70, 517)

Keenan, F.P., Norrington, P.H.: Relative emission-line strengths for Fevii in astrophysical plasmas 181, 370

Keenan, F.P., Brown, P.J.F., Conlon, E.S., Dufton, P.L., Lennon, D.J.: Non-LTE abundance analysis of the early-type high galactic latitude star HD 100340 178, 194

Keenan, F.P., Conlon, E.S., Brown, P.J.F.: A search for farinfrared (IRAS) emission from early-type stars at high galactic latitudes 178, 317

Kegel, W.H., see Albrecht, M.A. 176, 317

Keller, C., see Solanki, S.K., et al. 188, 183

Keller, H.U., Delamere, W.A., Huebner, W.F., Reitsema, H.J., Schmidt, H.U., Whipple, F.L., Wilhelm, K., Curdt, W., Kramm, R., Thomas, N., Arpigny, C., Barbieri, C., Bonnet, R.M., Cazes, S., Coradini, M., Cosmovici, C.B., Hughes, D.W., Jamar, C., Malaise, D., Schmidt, K., Schmidt, W.K.H., Seige, P.: Comet P/Halley's nucleus and its activity 187, 807

Keller, H.U., see Richter, K. 171, 317

Keller, H.U., see Schwarz, G., et al. 187, 847

Keller, H.U., see Thomas, N. 187, 843

Kellermann, K.I., see Götz, M.M.A., et al. 176, 171

Kembhavi, A.K., see Ray, A., et al. 184, 164

Kennel, C.F., see Scarf, F.L., et al. 187, 109

Kennicutt, R.C., Jr., see Hummel, E., et al. 185, 358 (70, 517)

Kennicutt, R.C., Jr., see Walterbos, R.A.M. 178, 328 (69, 309)

Kennicutt, R.C., see van der Hulst, J.M., et al. 177, 63

Keppler, E., see Curtis, C.C., et al. 187, 360

Keppler, E., see Gribov, B.E., et al. 187, 293

Keppler, E., see Hsieh, K.C., et al. 187, 375

Kern, J.R., see Rettig, T.W., et al. 187, 249

Kerr, F.J., see Brand, J., et al. 176, 188 (68, 1)

Kesteven, M.J., Caswell, J.L.: Barrel-shaped supernova remnants 183, 118

Khalil, N.M., see Youssef, N.H. 186, 333

Khavenson, N.G., see Mazets, E.P., et al. 187, 699

Khazanov, B., see Vaisberg, O.L., et al. 187, 183

Khromov, V.N., see Sagdeev, R.Z., et al. 187, 179

Kidger, M.R., Acosta, J.A., Garzón, F., Prieto, M., Gómez, R.: Low-resolution maps of comet P/Halley in principal atomic and molecular species 187, 363

Kiehling, R.: Spectrophotometry of bright F-, G-, K- and Mtype stars. I. Measurements of 60 southern and equatorial stars 180, 280 (69, 465)

Kikuchi, S., Mikami, Y., Mukai, T., Mukai, S., Hough, J.H.: Polarimetry of comet P/Halley 187, 689

Kikuchi, S., see Mukai, T., et al. 187, 650

King, A.R., Lasota, J.P.: Hard spectral components in soft Xray transients 185, 155

King, A.R., see Frank, J., et al. 178, 137

King, A.R., see Hameury, J.M., et al. 171, 140

King, D.L., see Reid, N., et al. 188, 269 (71, 397)

Kingston, A.E., see Finkenthal, M., et al. 184, 337

Kinoshita, H., see Watanabe, J., et al. 187, 229

Kinzel, W.M., see Schloerb, F.P., et al. 187, 475

Kissel, J., see Clark, B.C., et al. 187, 779

Kissel, J., see Langevin, Y., et al. 187, 761

Kissel, J., see McDonnell, J.A.M., et al. 187, 719

Kissel, J., see Sagdeev, R.Z., et al. 187, 179

Kissel, J., see Solc, M., et al. 187, 385

Kiszkurno-Koziej, E., Lequeux, J.: Variations in UV extinction in galactic associations and perpendicular to the galactic plane 185, 291

Kitayama, M., see Mukai, T., et al. 187, 129

Kitayama, M., see Takahashi, S., et al. 187, 94

Kızıloglu, Ü., see Alpar, A., et al. 177, 101

Kjærgaard, P.: The interpretation of the UV light of elliptical galaxies 176, 210

Klaas, U., see Krautter, J., et al. 181, 373

Klare, G., see Leitherer, C., et al. 185, 121

Klebesadel, R.W., see Hudec, R., et al. 175, 71

Klein, K.-L.: Microwave radiation from a dense magneto-active plasma 183, 341

Klein, K.-L., Chiuderi-Drago, F.: Radio outbursts in HR 1099: quantitative analysis of flux spectrum and intensity distribution 175, 179

Klein, U., see Beck, R., et al. 186, 95

Klein, U., see Loiseau, N., et al. 178, 62

Klein, U., see Sukumar, S., et al. 184, 71

Klein, U., see Wunderlich, E., et al. 180, 281 (69, 487)

Kleine, T., see de Vegt, C., et al. 179, 322

Kley, W., Hensler, G.: Two-dimensional numerical models of the boundary layer of accretion disks in cataclysmic variables 172, 124 Klimenko, I.N., see Gringauz, K.I., et al. 187, 287

Klimov, S., see Savin, S., et al. 187, 89

Knacke, R.F., Brooke, T.Y., Joyce, R.R.: The 3.2–3.6 μm emission features in comet P/Halley: spectral identifications and similarities 187, 625

Knacke, R.F., see Brooke, T.Y., et al. 187, 621

Kneer, F., Trujillo-Bueno, J.: Multidimensional radiative transfer in stratified atmospheres. V. Energy transport by radiation 183, 91

Kneer, F., see Trujillo-Bueno, J. 174, 183

Knickerbocker, K.L., see Rettig, T.W., et al. 187, 249

Knude, J.: The reddening and distance of Scorpius X-1 171, 289

Knude, J., Schnedler Nielsen, H., Winther, M.: The planar agevelocity dispersion relation from a polar sample of F stars with solar composition 179, 115

Kocer, D., Bolcal, C., Inelmen, E., Adelman, S.J.: Optical region elemental abundance analyses of B and A stars. VII. The metallic-lined star 32 Aquarii 182, 360 (70, 49)

Koch, I., Anderssen, R.S.: A direct surface smoothing procedure for Fourier image reconstruction in radiophysics 183, 170

Koch-Miramond, L., Aurière, M.: X-ray and UV observations of ω Centauri with EXOSAT 183, 1

Koch-Miramond, L., see Ilovaisky, S.A., et al. 179, L1

Kock, M., see Kroll, S. 173, 417 (67, 225)

Koehler, B., see Cristiani, S. 176, 196 (68, 339)

Koester, D., see Jordan, S., et al. 185, 253

Kogure, T., see Tatematsu, K., et al. 184, 279

Kohl-Moreira, J.L., see Festou, M.C., et al. 187, 575

Kollatschny, W., Fricke, K.J.: The Seyfert 2 galaxy IC 184 and its surrounding group 183, 9

Kollatschny, W., see Bues, I., et al. 186, 99

Kollatschny, W., see Colina, L., et al. 178, 51

Kollatschny, W., see Colina, L., et al. 186, 39

Kollatschny, W., see Netzer, II., et al. 171, 41

Kömle, N.I., Ip, W.-H.: Anisotropic non-stationary gas flow dynamics in the coma of comet P/Halley 187, 405

Kondo, Y., see Spaan, F.H.P., et al. 185, 229

Konjević, N., see Dimitrijević, M.S. 172, 345

Kontizas, E., Kontizas, M., Xiradaki, E.: Distribution of spectral types in the LMC clusters 188, 274 (71, 575)

Kontizas, E., Kontizas, M., Xiradaki, E.: Spectral classification of bright stars in LMC clusters. II. 177, 350 (68, 357)

Kontizas, E., Morgan, D.H., Dapergolas, A., Kontizas, M.: Spectral types of bright stars in the Small Magellanic Cloud Wing 182, 359 (70, 1)

Kontizas, E., see Dapergolas, A., et al. 182, 359 (70, 15)

Kontizas, E., see Kontizas, M., et al. 176, 192 (68, 147)

Kontizas, E., see Kontizas, M., et al. 177, 352 (68, 493)

Kontizas, E., see Xiradaki, E., et al. 173, 215 (67, 25)

Kontizas, E., see Xiradaki, E., et al. 178, 326 (69, 211)

Kontizas, M., Chrysovergis, M., Kontizas, E.: Observed dynamical parameters of the disk clusters of the LMC. I 176, 192 (68, 147)

Kontizas, M., Hadjidimitriou, D., Kontizas, E.: Masses and tidal radii of the star clusters in the halo of the LMC. I. 177, 352 (68, 493)

Kontizas, M., see Dapergolas, A., et al. 182, 359 (70, 15)

Kontizas, M., see Kontizas, E., et al. 177, 350 (68, 357)

Kontizas, M., see Kontizas, E., et al. 177, 330 (06, 35). Kontizas, M., see Kontizas, E., et al. 182, 359 (70, 1)

Kontizas, M., see Kontizas, E., et al. 188, 274 (71, 575)

Kontizas, M., see Xiradaki, E., et al. 173, 215 (67, 25)

Kontizas, M., see Xiradaki, E., et al. 178, 326 (69, 211)

Köppen, J., see Schmidt-Voigt, M. 174, 211

Köppen, J., see Schmidt-Voigt, M. 174, 223

Korth, A., Richter, A.K., Mendis, D.A., Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Mitchell, D.L., Rème, H., Sauvaud, J.A., d'Uston, C.: The composition and radial dependence of cometary ions in the coma of comet P/Halley 187, 149

Korth, A., see Anderson, K.A., et al. 187, 290

Korth, A., see d'Uston, C., et al. 187, 137

Korth, A., see Rème, H., et al. 187, 33

Korzennik, S., see Jimenez, A., et al. 172, 323

Koutchmy, S., see Louistisserand, S., et al. 177, 352 (68, 539)

Kozai, Y., see Watanabe, J., et al. 187, 229

Kramm, R., see Keller, H.U., et al. 187, 807

Kramm, R., see Schwarz, G., et al. 187, 847

Kranjc, A., see Barbieri, C., et al. 175, 360 (67, 507)

Kranjc, A., see Barbieri, C., et al. 187, 893

Krankowsky, D., see Eberhardt, P., et al. 187, 435

Krankowsky, D., see Eberhardt, P., et al. 187, 481

Krankowsky, D., see Lämmerzahl, P., et al. 187, 169

Krasikov, V.A., see Sagdeev, R.Z., et al. 187, 835 Krasnopolsky, V.A., Tkachuk, A.Y.: Curves of growth of emis-

sion lines in cometary spectra. Implications for H₂O and OH

bands of comet P/Halley 187, 431
, Krasnopolsky, V.A., Moroz, V.I., Krysko, A.A., Tkachuk, A.Y., Moreels, G., Clairemidi, J., Parisot, J.P., Gogoshev, M., Gogosheva, T.: Properties of dust in comet P/Halley measured by the Vega-2 three-channel spectrometer 187, 707

Krasnopolsky, V.A., see Moreels, G., et al. 187, 551

Krasnopolsky, V.A., see Moroz, V.I., et al. 187, 513

Krautter, J., Klaas, U., Radons, G.: On the nature of 623+71: a cataclysmic binary surrounded by a bow-shock-like emission nebula 181, 373

Krautter, J., see Leitherer, C., et al. 185, 121

Krautter, J., see Ögelman, H., et al. 177, 110

Krawczyk, Z., see Savin, S., et al. 187, 89

Kreitschmann, J., see Rohlfs, K. 178, 95

Krelowski, J., Strobel, A.: Extinction curves and intrinsic colours in local and distant OB complexes 175, 186

Kresák, L.: Dormant phases in the aging of periodic comets 187, 906

Kresák, L., see Carusi, A., et al. 187, 899

Kresáková, M.: Associations between ancient comets and meteor showers 187, 935

Kreysa, E., see Chini, R., et al. 181, 237

Kreysa, E., see Chini, R., et al. 182, L63

Kreysa, E., see Mezger, P.G., et al. 182, 127

Krishna Swamy, K.S.: Study of the isotopic features of Swan bands in comets 187, 388

Krishna Swamy, K.S., see Wallis, M.K. 187, 329

Kroll, R.: IRAS observations of CP stars 181, 315

Kroll, R., Schneider, H., Catalano, F.A., Voigt, H.H.: Infrared properties of CP stars 173, 416 (67, 195)

Kroll, S., Kock, M.: FeII oscillator strengths 173, 417 (67, 225)

Krügel, E., Güsten, R., Schulz, A., Thum, C.: NGC 2264: a molecular line study 185, 283

Krügel, E., see Chini, R., et al. 181, 378

Krügel, E., see Schulz, A. 171, 297

Kruszewski, A., see Heise, J., et al. 183, 73

Krysko, A.A., see Krasnopolsky, V.A., et al. 187, 707

Krysko, A.A., see Moreels, G., et al. 187, 551

Ksanfomality, L.V., see Simpson, J.A., et al. 187, 742

Au

La

Lá

La

La

La La

Kuczera, H., see McDonnell, J.A.M., et al. 187, 719

Kudritzki, R.P., Pauldrach, A., Puls, J.: Radiation driven winds of hot luminous stars. II. Wind models for O-stars in the Magellanic Clouds 173, 293

Kuhfuß, R., see Baker, N.H. 185, 117

Kühr, H., Johnston, K.J., Odenwald, S., Adlhoch, J.: Optical identifications and radio morphology of the complete 5 GHz S5 survey 188, 272 (71, 493)

Kühr, H., see Biermann, P.L., et al. 185, 9

Kühr, H., see Chini, R., et al. 181, 237

Kühr, H., see Eckart, A., et al. 173, 217 (67, 121)

Kuiper, T.B.H.: Cloud temperatures from ammonia observations 173, 209

Kuiper, T.B.H., see Gerin, M., et al. 173, L1

Kulshrestha, A., Deshpande, M.R., Joshi, U.C.: The optical polarization properties of blazars 188, 273 (71, 565)

Kulshrestha, A., see Joshi, U.C., et al. 181, 31

Kunasz, P.B., see Catala, C. 174, 158.

Kundt, W., Özel, M.E., Ercan, E.N.: Are the galactic-bulge X-ray sources magnetized? 177, 163

Kundu, M.R., McConnell, D., White, S.M., Shevgaonkar, R.K.: Very-Large-Array observations of a complex gradual solar burst at 6 cm wavelength 176, 131

Kunte, P.K., see Damle, S.V., et al. 182, L1

Kunte, P.K., see Damle, S.V., et al. 186, L20

Kunth, D., see Augarde, R., et al. 185, 4

Kunth, D., see Bergeron, J., et al. 180, 1

Kunze, R., Loose, H.-H., Yorke, H.W.: The evolution of clumpy gas in young elliptical galaxies 182, 1

Kuperus, M., see Zuccarello, F., et al. 180, 218

Kursinski, E.R., see Edenhofer, P., et al. 187, 712

Kurt, V., see Hudec, R., et al. 175, 71

Kuznetsov, A., see Hudec, R., et al. 175, 71

Kwok, S., see Arquilla, R. 173, 271

Kwok, S., see Sun, J. 185, 258

Labay, J., see Isern, J., et al. 172, L23

LaBelle, J., see Ögelman, H., et al. 183, L27

Laclare, F., Journet, A.: Sun observations in 1984–1985 at the CERGA astrolabe (Text in French) 178, 323 (69, 77)

Lacombe, F., see Mariotti, J.-M., et al. 182, L11

Lacy, J.L., see Golden, R.L., et al. 188, 145

Lagerkvist, C.-I., Williams, I.P.: Physical studies of asteroids. XV. Determination of slope parameters and absolute magnitudes for 51 asteroids 176, 195 (68, 295)

Lagerkvist, C.-I., Hahn, G., Magnusson, P., Rickman, H.: Physical studies of asteroids. XVI. Photoelectric photometry of 17 asteroids 182, 359 (70, 21)

Lagerkvist, C.-I., see Di Martino, M., et al. 173, 216 (67, 95) Laget, M., see Donas, J., et al. 180, 12

Lagrange, A.M., Ferlet, R., Vidal-Madjar, A.: The Beta Pictoris circumstellar disk. IV. Redshifted UV lines 173, 289

Lahulla, F., see Moles, M., et al. 186, 77

Lam, S.K., see Chollet, F., et al. 173, 419 (67, 297)

Lam, S.K., see Chollet, F., et al. 186, 363 (7L 109)

Lamarre, J.M., see Emerich, C., et al. 187, 839

Lamarre, J.M., see Moroz, V.I., et al. 187, 513

Lambert, D.L., see Arpigny, C., et al. 187, 485

Lambert, D.L., see Pettersen, B.R., et al. 183, 66

Lamers, H.J.G.L.M., Waters, L.B.F.M.: Constraints for models of Be stars derived from UV and IRAS observations 182, 80

Lamers, H.J.G.L.M., see Waelkens, C., et al. 181, L5

Lamers, H.J.G.L.M., see Waters, L.B.F.M., et al. 185, 206

Lämmerzahl, P., Krankowsky, D., Hodges, R.R., Stubbemann, U., Woweries, J., Herrwerth, I., Berthelier, J.J., Illiano, J.M., Eberhardt, P., Dolder, U., Schulte, W., Hoffman, J.H.: Expansion velocity and temperatures of gas and ions measured in the coma of comet P/Halley 187, 169

Lämmerzahl, P., see Eberhardt, P., et al. 187, 435

Lämmerzahl, P., see Eberhardt, P., et al. 187, 481

Lampens, P.: Photoelectric study of HD96008: a close binary system or a new pulsating star? 172, 173

Lamy, P.L., Grün, E., Perrin, J.M.: Comet P/Halley: implications of the mass distribution function for the photopolarimetric properties of the dust coma 187, 767

Lamy, P.L., Pedersen, H., Vio, R.: The dust tail of comet P/ Halley in April 1986 187, 661

Lamy, P., see Louistisserand, S., et al. 177, 352 (68, 539)

Landgraf, W.: Normal places for Pallas 1802–1978 188, 265 (71, 197)

Landi Degl'Innocenti, E., Bommier, V., Sahal-Bréchot, S.: Linear polarization of hydrogen Balmer lines in optically thick quiescent prominences. I. Theoretical investigation 186, 335

Landi Degl'Innocenti, E., see Favati, B., et al. 179, 329

Landolfi, M., see Favati, B., et al. 179, 329

Lane, A.P., see Diamond, P.J., et al. 174, 95

Langer, N.: The origin of the different Wolf-Rayet subtypes 171, L1

Langevin, Y., Kissel, J., Bertaux, J.-L., Chassefière, E.: First statistical analysis of 5000 mass spectra of cometary grains obtained by PUMA 1 (Vega-1) and PIA (Giotto) impact ionization mass spectrometers in the compressed modes 187, 761

Langevin, Y., see McDonnell, J.A.M., et al. 187, 719

Lanz, T., see Artru, M.-C. 182, 273

Lanz, T., see Vidal-Madjar, A., et al. 177, L17

Lanzerotti, L.J., see Johnson, R.E., et al. 187, 889

Lapasset, E., see Cerruti, M.A., et al. 177, 350 (68, 351)

Laros, J.G., see Hudec, R., et al. 175, 71

Larson, H.P., Mumma, M.J., Weaver, H.A.: Kinematic properties of the neutral gas outflow from comet P/Halley 187, 391

Larson, H.P., see Drapatz, S., et al. 187, 497

Larson, H.P., see Mumma, M.J., et al. 187, 419

Larson, H.P., see Weaver, H.A., et al. 187, 411

Larson, S., Sekanina, Z., Levy, D., Tapia, S., Senay, M.: Comet P/Halley near-nucleus phenomena in 1986 187, 639

Larson, S.M., see Sekanina, Z., et al. 187, 645

Larson, S., see Sagdeev, R.Z., et al. 187, 835

Larsson, S.: Discovery of 2–3 s quasi-periodic oscillations in EF Eri 181, L15

Laskar, J., Jacobson, R.A.: GUST 86. An analytical ephemeris of the Uranian satellites 188, 212

Lasota, J.-P., see Frank, J., et al. 178, 137

Lasota, J.P., see Hameury, J.M., et al. 171, 140

Lasota, J.P., see King, A.R. 185, 155

Lassaut, M., Flocard, H., Bonche, P., Heenen, P.H., Suraud, E.: Equations of state of hot dense matter 183, L3

Lauberts, A.: UBVRI photoelectric photometry of 48 southern galaxies 176, 193 (68, 215)

Lauberts, A., see Paturel, G., et al. 184, 86

Lauberts, A., see West, R.M., et al. 177, L1

Laureijs, R.J., Mattila, K., Schnur, G.: IRAS and optical observations of the high-latitude dust cloud Lynds 1642 184, 269
 Laurikainen, E., see Teräsranta, H., et al. 186, 364 (71, 125)
 Laval, A., Boulesteix, J., Georgelin, Y.P., Georgelin, Y.M., Mar-

celin, M.: First observations with the scanning Fabry-Perot interferometer CIGALE: the stellar wind bubble N62B in the Large Magellanic Cloud 175, 199

Laval, A., see Georgelin, Y.M., et al. 174, 257

Lázaro, C., Garzón, F., Arévalo, M.J.: Low resolution mapping of comet P/Halley in the near-infrared 187, 605

Lazarus, A.J., see Balsiger, H., et al. 187, 163

Lazarus, A.J., see Neugebauer, M., et al. 187, 21

Lazarus, A.J., see Shelley, E.G., et al. 187, 304

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R.: A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites 182, 150

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R.: Erratum: A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites 186, 360

Lazzaro, D., see Veiga, C.H., et al. 185, 354 (70, 325)

Le Bertre, T.: Optical and infrared observations of two type-II OH/IR sources 180, 160

Le Bertre, T.: The opacity of the dust around the carbon star IRC+10216 176, 107

Le Bertre, T., Epchtein, N.: Optical and infrared observations of two oxygen-rich unidentified IRAS sources 171, 116

Le Bertre, T., see Bouchet, P., et al. 174, 288

Le Bertre, T., see Bouchet, P., et al. 177, L9

Le Bertre, T., see Danks, A.C., et al. 184, 329

Le Bertre, T., see Epchtein, N., et al. 186, 362 (71, 39)

Le Bertre, T., see Epchtein, N., et al. 188, 269 (71, 411)

Le Bertre, T., see Waelkens, C., et al. 181, L5

Le Borgne, J.F., Leroy, J.L., Arnaud, J.: Polarimetry of comet P/Halley: continuum versus molecular bands 187, 526

Le Borgne, J.F., Leroy, J.L., Arnaud, J.: Polarimetry of visible and near-UV molecular bands: comets P/Halley and Hartley-Good 173, 180

Le Borgne, J.F., see Leroy, J.L. 186, 322

Le Bourlot, J., Roueff, E., Viala, Y.: Rotational equilibrium of C₂ in diffuse interstellar clouds. I. Static model: the case of ζ Ophiuchi 188, 137

Le Bourlot, J., see Zeippen, C.J., et al. 188, 251

Le Contel, J.M., see Chapellier, E., et al. 176, 255

Leach, S.: Electronic spectroscopy and relaxation of some molecular cations of cometary interest 187, 195

Leahy, D.A.: Searches for pulsed emission: improved determination of period and amplitude from epoch folding for sinusoidal signals 180, 275

Leahy, D.A., Taylor, A.R.: X-ray emission from the symbiotic system CH Cygni 176, 262

Lebreton, Y., Maeder, A.: Stellar evolution with turbulent diffusion mixing. VI. The solar model, surface 7Li and 3He abundances, solar neutrinos and oscillations 175, 99

Lebrun, F., see Strong, A.W., et al. 173, 418 (67, 283)

Lecacheux, J., see Festou, M.C., et al. 187, 575

Lecoarer, E., see Boulesteix, J., et al. 178, 91

Lecoarer, E., see Marcelin, M., et al. 179, 101

Leene, A., Cox, P.: Observational constraints on the carriers of the ultraviolet extinction bump 174, L1

Leene, A., Pottasch, S.R.: Observations of extended planetary nebulae. I. NGC 7293: the Helix Nebula 173, 145

Leene, A., see Cox, P. 174, 203

Leene, A., see Zhang, C.Y., et al. 178, 247

Léger, A., see d'Hendecourt, L.B. 180, L9

Legrand, J.P., see Simon, P.A. 182, 329

Lehman, M., see Chollet, F., et al. 173, 419 (67, 297)

Lehto, H., see Salonen, E., et al. 185, 356 (70, 409)

Leinert, Ch., Haas, M.: Z CMa resolved at near infrared wavelengths: one more piece to the puzzle 182, L47

Leinert, C., see Eiroa, C. 188, 46 Leinert, C., see Eiroa, C., et al. 179, 171

Leitherer, C., Chavarria-K, C.: The O6.5f?p star HD 148937 and its interstellar environment 175, 208

Leitherer, C., Zickgraf, F.-J.: The detection of a circumstellar shell around P Cygni by direct CCD imaging 174, 103

Leitherer, C., Forbes, D., Gilmore, A.C., Hearnshaw, J., Klare, G., Krautter, J., Mandel, H., Stahl, O., Strupat, W., Wolf, B., Zickgraf, F.-J., Zirbel, E.: Photometry and spectroscopy of the O-type variable HD 167971 185, 121

Leitherer, C., see Stahl, O. 177, 105

Lemke, M., Holweger, H.: A non-LTE study of the solar emission lines near 12 um 173, 375

Lennon, D.J., see Keenan, F.P., et al. 178, 194

Lenzen, R.: IR reflection nebulae near molecular outflow sources 173, 124

Lenzen, R., see Eiroa, C., et al. 179, 171

Lépine, J.R.D., see Epchtein, N., et al. 186, 362 (71, 39)

Lépine, J.R.D., see Epchtein, N., et al. 188, 269 (71, 411)

Lequeux, J., Meyssonnier, N., Azzopardi, M.: An objectiveprism survey of emission-line objects in M33 and IC1613 173, 218 (67, 169)

Lequeux, J., see Kiszkurno-Koziej, E. 185, 291

Lerche, I., see Dröge, W., et al. 178, 252

Leroy, J.L., Le Borgne, J.F.: Continuum versus line polarization at the center of the Orion nebula 186, 322

Leroy, J.L., see Le Borgne, J.F., et al. 173, 180

Leroy, J.L., see Le Borgne, J.F., et al. 187, 526

Lesch, H., Schlickeiser, R.: Stabilization and consequences of relativistic electron bumps in extragalactic radio sources 179,

Lester, D.F., see Campins, H., et al. 187, 632

Leung, C.M., see Millar, T.J., et al. 183, 109

Levy, D., see Larson, S., et al. 187, 639

Lewin, W.H.G., see Vacca, W.D., et al. 172, 143

Lewin, W.H.G., see van Paradijs, J. 172, L20

Lezhen, L.A., see Verigin, M.I., et al. 187, 121

Li, Kai.-Hua., see Xie, Guang.-Zhong., et al. 173, 214 (67, 17) Li, Qi.: Comparison of the declination systems of the General Catalogue observed with photoelectric astrolabes of China and five modern meridian catalogues 174, 306

Liebert, J., Wehrse, R., Green, R.F.: White dwarfs with metallic line spectra 175, 173

Lieske, J.H.: Galilean satellite evolution: observational evidence for secular changes in mean motions 176, 146

Lieu, R., Quenby, J.J., Sumner, T.J.: Cyclotron radiation, conservation laws and a correction to the synchrotron loss formula 176, L21

Likkel, L., Omont, A., Morris, M., Forveille, T.: Very cold IRAS objects and pre-planetary nebulae: CO observations 173, L11

Likkel, L., see Forveille, T., et al. 176, L13

Lin, H., see Pettersen, B.R., et al. 183, 66

Lin, R.P., see Anderson, K.A., et al. 187, 290

Lin, R.P., see d'Uston, C., et al. 187, 137

Lin, R.P., see Korth, A., et al. 187, 149

Lin, R.P., see Rème, H., et al. 187, 33

Lindblad, B.A.: The meteor stream associated with comet P/ Grigg-Skjellerup 187, 931

Lindblad, B.A.: The 1985 return of the Giacobinid meteor stream 187, 928

Lindblad, B.A., see McDonnell, J.A.M., et al. 187, 719

A

M

M

Mi.

M

M

M

M

M

M

Lindblad, P.O., see Hummel, E., et al. 172, 51

Lindgren, H., Ardeberg, A., Zuiderwijk, E.: Orbital elements for double stars of Population II. The high-velocity system COD-48° 1741 188, 39

Lindgren, H., see Ardeberg, A. 173, 216 (67, 103)

Lindgren, H., see Cacciari, C., et al. 178, 325 (69, 135)

Lindgren, H., see Maurice, E., et al. 175, 358 (67, 423)

Lindler, D.J., see Heap, S.R. 185, L10

Lindqvist, M., Winnberg, A., Ukita, N., Johansson, L.E.B.: First detection of SiO emission from circumstellar shells at the galactic centre 172, L3

Lindroos, K.P., see Liseau, R., et al. 183, 274

Ling, J.F.: Micrometer measurements of visual double stars obtained at the Nice and Pic du Midi Observatories 186, 364 (71, 115)

Linsky, J.L., see Butler, C.J., et al. 174, 139

Linsky, J.L., see Byrne, P.B., et al. 180, 172

Linsky, J.L., see Rodonò, M., et al. 176, 267

Linsky, J.L., see Walter, F.M., et al. 186, 241

Lion, J., see Volonté, S., et al. 182, 167

Lippmann, S., see Finkenthal, M., et al. 184, 337

Lipunov, V.M., Postnov, K.A., Prokhorov, M.E.: The sources of gravitational waves with continuous and discrete spectra 176, L1

Liseau, R., Lindroos, K.P., Fischerström, C.: The strange "spots" on the T Tauri star RY Lupi 183, 274

Little, L.T., see Matthews, N., et al. 184, 284

Liu, J.Y., see Maehara, H., et al. 178, 221

Liu, Xin.-De., see Xie, Guang.-Zhong., et al. 173, 214 (67, 17) Liu, Z.L.: Photographic observations of tail-formation activities

of comet P/Halley in November 1985 187, 225

Llebaria, A., see Nieto, J.-L., et al. 178, 301

Lloyd, C., see Panagia, N., et al. 177, L25

Lloyd, C., see Stickland, D.J., et al. 184, 185

Lloyd, C., see Wamsteker, W., et al. 177, L21

Lo, K.Y., see Zuckerman, B. 173, 263

Loewenstein, R.F., see Glaccum, W., et al. 187, 635

Loiseau, N., Klein, U., Greybe, A., Wielebinski, R., Haynes, R.F.: Thermal and nonthermal radio emission from the Small Magellanic Cloud 178, 62

Loks, A., see Sergysels, R. 182, 163

Lolli, M., see Cacciari, C., et al. 178, 325 (69, 135)

Loose, H.-H., see Kunze, R., et al. 182, 1

López, J.A.: The kinematical structure of the bipolar planetary nebula 19 W 32 186, 303

López, J.A., see Moreno, M.A. 178, 319

López, R., Simonneau, E., Isern, J.: Model atmospheres for type I supernovae: curvature effects 184, 249

López, R., see Anglada, G., et al. 186, 280

Lorenzetti, D., Moneti, A., Stanga, R., Strafella, F.: Infrared monitoring of comet P/Halley 187, 609

Lorenzetti, D., see Bouchet, P., et al. 177, L9

Lorenzetti, D., see D'Amico, N., et al. 180, 114

Lortet, M.C., Blazit, A., Bonneau, D., Foy, R.: Speckle interferometric observations of the Wolf-Rayet star AS431 and of early-type stars in Cyg OB2 180, 111

Lortet, M.-C., Georgelin, Y.P., Georgelin, Y.M.: The region of the supernova remnant MSH 15-52 revisited: A new thermal H II region, H II G 320.5-1.4 180, 65

Lortet, M.-C., see Dickel, H.R., et al. 176, 190 (68, 75)

Lortet, M.-C., see Testor, G. 178, 25

Lou, G.F., see Zeng, Q., et al. 172, 299

Louise, R., Macron, A., Pascoli, G., Maurice, E.: Photometric

and spectrophotometric observations of 10 southern planetary nebulae 183, 186 (70, 201)

Louistisserand, S., Bücher, A., Koutchmy, S., Lamy, P.: Night sky optical spectrum from a high altitude observatory 177, 352 (68, 539)

Lovelace, R.V.E.: Electron-positron jets from gamma-ray beams 173, 237

Loyola, P., see Carrasco, G. 173, 214 (67, 1)

Loyola, P., see Carrasco, G. 185, 355 (70, 369)

Loyola, P., see Cristiani, S., et al. 177, L5

Lub, J., see de Grijp, M.H.K., et al. 182, 362 (70, 95)

Lucas, R., see Glassgold, A.E., et al. 180, 183

Lucas, R., see Guilloteau, S., et al. 176, L24

Lucy, L.B.: Computed ultraviolet spectra for SN 1987A 182, L31

Lucy, L.B., Perinotto, M.: Models for the wind of the central star of NGC 6543 188, 125

Lucy, L.B., see Baade, D. 178, 213

Lucy, L.B., see Wampler, E.J., et al. 182, L51

Lugten, J.B., see Stacey, G.J., et al. 187, 451

Lund, G., see Cristiani, S., et al. 179, 108

Lundgren, K., see Westerlund, B.E., et al. 178, 41

Lundstedt, H., Magnusson, P.: Two disconnection events in comet P/Halley and possible solar causes 187, 261

Lunel, M., see Burkhart, C., et al. 172, 257

Lunel, M., see Manfroid, J., et al. 176, 180

Lustig, G., Hanslmeier, A.: Meridional motions of sunspots from 1947.9 to 1985.0. II. Latitude motions dependent on spot type and phase of the activity cycle 172, 332

Lyngå, G., Palouš, J.: The local kinematics of open star clusters 188, 35

Maas, D., see Göller, J.R., et al. 187, 693

Maccagni, D., Garilli, B., Schild, R., Tarenghi, M.: X-ray/optical brightness trends in 3C 66A 178, 21

Macdonald, G.H., see Matthews, N., et al. 184, 284

MacGillivray, H.T., see Albers, H., et al. 182, L8

MacGillivray, H.T., see Parker, Q.A., et al. 173, L5

Maciel, W.J., see Faundez-Abans, M. 183, 324

Macklin, R.L., see Winters, R.R., et al. 171, 9

Macron, A., see Louise, R., et al. 183, 186 (70, 201)

Maeder, A.: Changes of surface chemistry for standard massive star evolution: Cartography in the HR diagram 173, 247

Maeder, A.: Evidences for a bifurcation in massive star evolution. The ON-blue stragglers 178, 159

Macder, A., Meynet, G.: Grids of evolutionary models of massive stars with mass loss and overshooting. Properties of Wolf-Rayet stars sensitive to overshooting 182, 243

Maeder, A., see Lebreton, Y. 175, 99

Maehara, H., Okamura, S., Noguchi, T., He, X.T., Liu, J.Y., Huang, Y.W., Feng, X.C.: NGC 2242: a newly discovered planetary nebula 178, 221

Magain, P.: Abundances of light elements in halo dwarfs: a re-analysis 179, 176

Magain, P.: The missing opacity and the temperature calibration of solar-type stars 181, 323

Magain, P., Gillet, D.: Detection of interstellar CH and CH⁺ towards SN 1987 A 184, L5

Magain, P., see Arpigny, C., et al. 187, 485

Magain, P., see Vreux, J.M., et al. 180, L17

Magalhães, A.M., see Schulte-Ladbeck, R.E. 181, 213

Maggioli, P.P., see Stephen, J.B., et al. 185, 343

Magnan, C., see Bertout, C. 183, 319

Magnusson, P., see Cristiani, S., et al. 177, L5

Magnusson, P., see Lagerkvist, C.-I., et al. 182, 359 (70, 21)

Magnusson, P., see Lundstedt, H. 187, 261

Malaise, D., see Keller, H.U., et al. 187, 807

Maillard, J.P., Crovisier, J., Encrenaz, T., Combes, M.: The spectrum of comet P/Halley between 0.9 and 2.5 μm 187,

Maitzen, H.M., Pavlovski, K.: Photoelectric search for CP 2stars in open clusters. IX. Pleiades and Coma Berenices. The case of Pleione 178, 313

Maitzen, H.M., Pavlovski, K.: Photoelectric search for CP2stars in open clusters. XII. Alpha Persei, Praesepe and NGC 7243 188, 271 (71, 441)

Maitzen, H.M., Schneider, H.: Photoelectric search for CP2stars in open clusters. XI. NGC 3532 and NGC 5662 188, 270 (71, 431)

Maitzen, H.M., see Jenkner, H. 188, 266 (71, 255)

Malagnini, M.L., see Cacciari, C., et al. 183, 314

Malagnini, M.L., see Ramella, M., et al. 178, 322 (69, 1)

Malaise, D., see Keller, H.U., et al. 187, 807

Malherbe, J.M., Schmieder, B., Mein, P., Tandberg-Hanssen, E.: Dynamics of solar filaments. V. Oscillations in the $H\alpha$ and 1548 Å CIV lines 172, 316

Malherbe, J.M., see Démoulin, P., et al. 183, 142

Malherbe, J.M., see Mein, P., et al. 177, 283

Mamon, G.A., see Glassgold, A.E., et al. 180, 183

Mampaso, A., see Chlewicki, G., et al. 173, 131

Manabe, S.: Note on Li's expression of corrections for the deflection of light in the case of astrolabe observations 173, 212

Managadze, G.G., see Sagdeev, R.Z., et al. 187, 179

Manchester, R.N.: The radio structure of supernova remnants 171, 205

Mandel, H., see Leitherer, C., et al. 185, 121

Mandeville, J.-C., see McDonnell, J.A.M., et al. 187, 719

Manfroid, J., Sterken, C.: Instrumental effects and the Strömgren photometric system 188, 272 (71, 539)

Manfroid, J., Gosset, E., Vreux, J.M.: Which photometric period for WR 16? 185, L7

Manfroid, J., Heck, A., Lunel, M., Bergeat, J.: Evolution of the periodicity of the W UMa system ε CrA 176, 180

Manfroid, J., Oblak, E., Pernier, B.: uvby observations of A, F, G and K field stars 180, 281 (69, 505)

Manfroid, J., see Arpigny, C., et al. 187, 485

Manfroid, J., see Heck, A., et al. 182, 360 (70, 33)

Manfroid, J., see Sterken, C., et al. 187, 523

Manfroid, J., see Vreux, J.M., et al. 180, L17

Mangeney, A., see Gondoin, P., et al. 174, 187

Mangombi dei Ilonga, J., see Chollet, F., et al. 173, 419 (67, 297)

Mangombi dei Ilonga, J., see Chollet, F., et al. 186, 363 (71, 109)

Mannone, C., see Fehrenbach, C., et al. 188, 267 (71, 263)

Mannone, C., see Fehrenbach, C., et al. 188, 267 (71, 275)

Mantegazza, L., see Antonello, E., et al. 171, 131

Mantegazza, L., see Breger, M., et al. 175, 117

Mantegazza, L., see Poretti, E., et al. 178, 328 (69, 335)

Mantegazza, L., see Poretti, E., et al. 181, 273

Mantovani, F., see Padrielli, L., et al. 173, 215 (67, 63)

Manuel, P.W., see Mitalas, R. 173, 244

Marang, F., see Balona, L.A., et al. 181, 11 (71, 11)

Marang, F., see Balona, L.A., et al. 186, 361 (71, 11)

Marano, B., see Battistini, P., et al. 175, 358 (67, 447)

Maraschi, L., see van Paradijs, J., et al. 184, 201

Marcelin, M., Lecoarer, E., Boulesteix, J., Georgelin, Y., Monnet, G.: The detailed velocity field of the ionized gas in the interacting pair of galaxies NGC 7752-53 179, 101

Marcelin, M., see Boulesteix, J., et al. 178, 91

Marcelin, M., see Georgelin, Y.M., et al. 174, 257

Marcelin, M., see Laval, A., et al. 175, 199

Marcondes-Machado, J.A.: A model for the intrinsic linear polarization of cool giant and supergiant stars 188, 131

Marcout, J., see Florsch, A., et al. 187, 357

Mardirossian, F., see Giuricin, G., et al. 176, 175

Mardirossian, F., see Ramella, M., et al. 188, 1

Mariani, F., see Glaßmeier, K.H., et al. 187, 65

Mariani, F., see Johnstone, A., et al. 187, 47

Mariotti, J.-M., Perrier, C., Lacombe, F.: Have circumstellar envelopes been detected around nearby M-dwarfs? 182, L11
 Marmolino, C., see Gomez, M.T., et al. 188, 169

Marocchi, D., see Antonucci, E., et al. 188, 159

Marques dos Santos, P., see Epchtein, N., et al. 186, 362 (71, 39)

Marques dos Santos, P., see Epchtein, N., et al. 188, 269 (71, 411)

Marsden, R.G., see Gribov, B.E., et al. 187, 293

Marsh, K.A., Richardson, J.M.: The objective function implicit in the CLEAN algorithm 182, 174

Marshall, F.J., see Priedhorsky, W., et al. 173, 95

Marsi, C., Selvelli, P.L.: The FeII emission in the UV spectrum of CH Cyg 186, 365 (71, 153)

Marston, A.P.: CCD photometry and dynamics of the peculiar galaxy ESO 217-G09 183, 21

Martens, P.C.H., see Pakkert, J.W., et al. 179, 285

Martin, N., see Maurice, E., et al. 175, 358 (67, 423)

Martin, N., see Robin, A., et al. 176, 189 (68, 63)

Martin, W.: The 3.3 μm and 3.4 μm emission features in planetary nebulae 182, 290

Martinet, L., Pfenniger, D.: Complex instability around the rotation axis of stellar systems. I. Galactic potentials _173, 81

Martinez Roger, C.: Empirical colour-metallicity relations for Population II giant stars 171, 77

Martinez Roger, C., Paez, E.: Mass-loss of globular cluster red giants. A semi-empirical estimation 184, 155

Martinez Roger, C., see Arribas, S. 178, 106

Martinez Roger, C., see Arribas, S. 185, 354 (70, 303)

Martinez Roger, C., see Caputo, F., et al. 183, 228

Martín-Mirones, J.M., see Goicoechea, L.J. 186, 22

Martín-Pintado, J., Cernicharo, J.: NH₃ observations of the HH1-HH2 region 176, L1

Marton, S., see Cerruti, M.A., et al. 177, 350 (68, 351)

Martres, M.J., see Mouradian, Z., et al. 183, 129

Mason, L.W., see Clark, B.C., et al. 187, 779

Massaro, E., see D'Amico, N., et al. 180, 114

Mastichiadis, A., see Hermsen, W., et al. 175, 141

Mathez, G., see Mellier, Y. 175, 1

Mathez, G., see Soucail, G., et al. 184, L7

Mathys, G.: Properties of blue stragglers in young OB associations 188, 265 (71, 201)

Mathys, G., Stenflo, J.O.: Anomalous Zeeman effect: moments and expansion coefficients 175, 361 (67, 557)

Mathys, G., Stenflo, J.O.: Anomalous Zeeman effect and its influence on the line absorption and dispersion coefficients 171, 368

Mathys, G., Stenflo, J.O.: Erratum: Anomalous Zeeman effect: moments and expansion coefficients 185, 358 (70, 142)
Mathys, G., see Heck, A., et al. 182, 360 (70, 33)

AL

M

M

M

M

M

M

M

M

M

M

M

M

M

M

M

M

M

M

M

N

Matraka, B.: Contact binary models with dissipative heating 171, 95

Matraka, B., see Kähler, H., et al. 172, 179

Matsuura, O.T., see Epchtein, N., et al. 186, 362 (71, 39)

Matsuura, O.T., see Epchtein, N., et al. 188, 269 (71, 411)

Matteucci, F., Tornambè, A.: Chemical evolution of elliptical galaxies 185, 51

Matthews, N., Little, L.T., Macdonald, G.H., Andersson, M., Davies, S.R., Riley, P.W., Dent, W.R.F., Vizard, D.: Molecular line observations of the H_{II} region G34.3+0.2 184, 284

Mattig, W., see Nesis, A., et al. 182, L5

Mattila, K., see Laureijs, R.J., et al. 184, 269

Maucherat, A.J., see Hecquet, J., et al. 183, 13

Mauder, H., Høg, E.: Expected number of new variable stars by TYCHO photometry with HIPPARCOS 185, 349

Mauersberger, R., Henkel, C., Wilson, T.L.: A multilevel study of ammonia in star-forming regions. I. Maser and thermal emission toward W51 IRS2 173, 352

Mauersberger, R., see Henkel, C., et al. 182, 137

Mauersberger, R., see Henkel, C., et al. 182, 299

Mauersberger, R., see Henkel, C., et al. 188, L1

Mauersberger, R., see Walmsley, C.M., et al. 172, 311

Mauersberger, R., see Wilson, T.L., et al. 186, L5

Mauger, B.G., see Golden, R.L., et al. 188, 145
Maurice, E., Andersen, J., Ardeberg, A., Bardin, C., Imbert, M., Lindgren, H., Martin, N., Mayor, M., Nordström, B., Prévot, L., Rebeirot, E., Rousseau, J.: Radial velocities of southern stars obtained with the photoelectric scanner CORAVEL. VI. 233 F to M type stars in and near the Small Magellanic Cloud. Comparison with 80 spectrographic radial velocities of O to K type stars in this Galaxy. 175, 358 (67, 423)

Maurice, E., see Louise, R., et al. 183, 186 (70, 201)

Mauter, H.A., see Brandt, P.N., et al. 188, 163

Mavridis, L.N., Avgoloupis, S.: The flare energy spectrum of EV Lac 188, 95

May, J., see Alvarez, H., et al. 176, 25

May, J., see Arnal, E.M., et al. 174, 78

Mayer, C.J., Richardson, K.M., Rogers, M.J., Szabelski, J., Wolfendale, A.W.: Cosmic ray gradients in the Outer Galaxy 180, 73

Mayer, P., Drechsel, H.: Up-to-date parameters of the eclipsing triple system IU Aur 183, 61

Mayer-Hasselwander, H.A., see Clear, J., et al. 174, 85

Mayer-Hasselwander, H.A., see Hermsen, W., et al. 175, 141

Mayer-Hasselwander, H.A., see Strong, A.W., et al. 173, 418 (67, 283)

Mayor, M., Mazeh, T.: The frequency of triple and multiple stellar systems 171, 157

Mayor, M., see Maurice, E., et al. 175, 358 (67, 423)

Mayor, M., see Mermilliod, J.C., et al. 185, 356 (70, 389)

Maza, J., see Hamuy, M. 177, 350 (68, 383)

Mazeh, T., see Mayor, M. 171, 157

Mazets, E.P., Sagdeev, R.Z., Aptekar, R.L., Golenetskii, S.V., Guryan Yu, A., Dyachkov, A.V., Ilyinskii, V.N., Panov, V.N., Petrov, G.G., Savvin, A.V., Sokolov, I.A., Frederiks, D.D., Khavenson, N.G., Shapiro, V.D., Shevchenko, V.I.: Dust in comet P/Halley from Vega observations 187, 699

Mazure, A., see Proust, D., et al. 173, 215 (67, 57)

Mazurier, J.M., see Rapaport, M., et al. 179, 317

McClements, K.G.: The quasi-linear relaxation and bremsstrahlung of thick target electron beams in solar flares 175, 255

McConnell, D., see Kundu, M.R., et al. 176, 131 McCoy, R.P., see Opal, C.B., et al. 187, 320

Green, S.F., Grun, E., Hanner, M.S., Hughes, D.W., Igenbergs, E., Kissel, J., Kuczera, H., Lindblad, B.A., Langevin, Y., Mandeville, J.-C., Nappo, S., Pankiewicz, G.S.A., Perry, C.H., Schwehm, G.H., Sekanina, Z., Stevenson TJ: The dust distribution within the inner coma of comet P/Halley (1982i): encounter by Giotto's impact detectors 187, 719

McDonnell, J.A.M., see Grard, R.J.L., et al. 187, 785

McDonnell, J.A.M., Alexander, W.M., Burton, W.M., Bussolet-

ti, E., Evans, G.C., Evans, S.T., Firth, J.G., Grard, R.J.L.,

McFadden, L.A., A'Hearn, M.F., Feldman, P.D., Roettger, E.E., Edsall, D.M., Butterworth, P.S.: Activity of comet P/Halley on March 23–25, 1986: IUE observations 187, 333

McFadden, L.A., see Feldman, P.D., et al. 187, 325

McGale, P.A., see Clarke, D. 178, 294

McKeith, C.D., Bates, B., Catney, M., Barnett, E., Jorden, P.R., van Breda, I.G.: High dispersion spectroscopy of point sources and extended objects with an echelle/CCD spectrograph 173, 204

McLean, I.S., see Yamashita, T., et al. 177, 258

McNamara, B.J., see Hakkila, J. 186, 255

Meaburn, J., Wolstencroft, R.D., Walsh, J.R.: Echelle and spectropolarimetric observations of the η Carinae nebulosity 181, 333

Mebold, U., Heithausen, A., Reif, K.: Ammonia in the galactic halo and the infrared cirrus 180, 213

Mebold, U., see Heithausen, A., et al. 179, 263

Meco, M., see Cavallini, F., et al. 184, 386

Meech, K.J., Jewitt, D.C.: Observations of comet P/Halley at minimum phase angle 187, 585

Mégessier, C., North, P.: Evidence for no short time scale photometric variations in the Bp-Si star HD 92664 183, 187 (70, 247)

Meier, A., see Balsiger, H., et al. 187, 163

Meier, A., see Schwenn, R., et al. 187, 160

Mein, N., see Mein, P., et al. 177, 283

Mein, P., Mein, N., Malherbe, J.M., Dame, L.: Inversion of line profile disturbances. A non-linear method applied to solar Call lines 177, 283

Mein, P., see Malherbe, J.M., et al. 172, 316

Mellier, Y., Mathez, G.: Deprojection of the de Vaucouleurs r^{1/4} brightness profile 175, 1

Mellier, Y., see Soucail, G., et al. 172, L14

Mellier, Y., see Soucail, G., et al. 184, L7

Mellier, Y., see Soucail, G., et al. 184, 361

Melnick, J., see Aparicio, A., et al. 188, 267 (71, 297)

Mendis, A., see d'Uston, C., et al. 187, 137

Mendis, D.A., see Anderson, K.A., et al. 187, 290

Mendis, D.A., see Korth, A., et al. 187, 149

Mendis, D.A., see Rème, H., et al. 187, 33

Mendoza, C., Zeippen, C.J.: Radiative atomic data for neutral magnesium. I. Oscillator strengths 179, 339

Mendoza, C., Zeippen, C.J.: Radiative atomic data for neutral magnesium. II. Photoionization cross sections 179, 346

Menon, S.L.R., see Blackwell, D.E., et al. 180, 229

Menten, K.M., Serabyn, E., Güsten, R., Wilson, T.L.: Physical conditions in the IRAS 16293-2422 parent cloud 177, L57

Menten, K.M., see Cernicharo, J., et al. 181, L1

Menten, K.M., see Henkel, C., et al. 182, 299

Menten, K.M., see Henkel, C., et al. 188, L1 Menten, K.M., see Walmsley, C.M. 179, 231

Merényi, E., see Sagdeev, R.Z., et al. 187, 835

Mermilliod, J.-C., *UBV* photoelectric photometry catalogue (1986). I. The original data (magnetic tape) **188**, 270 (71, 413)

Mermilliod, J.-C., UBV photoelectric catalogue (1986). II. Analvsis of the data 186, 364 (71, 119)

Mermilliod, J.C., Mayor, M., Burki, G.: Membership of Cepheids and red giants in 8 open clusters: NGC 129, 6067, 6087, 6649, 6664, IC 4725, Ly 5, Ru 79 185, 356 (70, 389)

Message, P.J., see Taylor, D.B., et al. 181, 383

Metz, K., Haefner, R.: Circular polarization near the nucleus of comet P/Halley. 187, 539

Meurs, E.J.A., see Roos, N. 181, 14

Mewe, R., see Heise, J., et al. 183, 73

Meyer, C., see Billaud, G., et al. 176, 190 (68, 67)

Meyer-Hofmeister, E.: The viscosity-surface density relation and implications for the early rise of dwarf novae outbursts 175,

Mever-Hofmeister, E., see Anzer, U., et al. 188, 85

Meylan, G.: Studies of dynamical properties of globular clusters. III. Anisotropy in ω Centauri 184, 144

Meynet, G., see Maeder, A. 182, 243

Meys, J.J.M., see Van Leeuwen, F., et al. 175, 359 (67, 483)

Meyssonnier, N., see Lequeux, J., et al. 173, 218 (67, 169)

Mezger, P.G., Chini, R., Kreysa, E., Wink, J.: Observations of cold dust in S 106 182, 127

Mezger, P.G., see Baars, J.W.M., et al. 175, 319

Mezger, P.G., see Chini, R., et al. 181, 237

Mezzetti, M., see Giuricin, G., et al. 176, 175

Mezzetti, M., see Ramella, M., et al. 188, 1

Mignard, F., see Billaud, G., et al. 176, 190 (68, 67)

Mihajlov, A.A., see Dimitrijević, M.S., et al. 182, 360 (70, 57)

Mikami, Y., see Kikuchi, S., et al. 187, 689

Mikhailov, Y., see Mogilevsky, M., et al. 187, 80

Mikhailov, Y., see Pedersen, A., et al. 187, 297

Mikhailov, Y., see Trotignon, J.G., et al. 187, 83

Mikusch, E., see Schwarz, G., et al. 187, 847

Milani, A., Nobili, A.M., Carpino, M.: Secular variations of the semimajor axes: theory and experiments 172, 265

Milani, A., see Carpino, M., et al. 181, 182

Milano, L., Russo, G., Terzan, A.: FS Lupi: a contact binary in poor thermal contact 183, 265

Miley, G.K., see de Grijp, M.H.K., et al. 182, 362 (70, 95)

Milgrom, M.: Why is the rapid burster different from all other galactic-bulge X-ray sources? 172, L1

Milgrom, M.: The light-echo model for luminous arcs

Millar, T.J., Elldér, J., Hjalmarson, A., Olofsson, H.: Searches for interstellar and circumstellar metal oxides and chlorides 182, 143

Millar, T.J., Leung, C.M., Herbst, E.: How abundant are complex interstellar molecules? 183, 109

Millar, T.J., see Nejad, L.A.M. 183, 279

Milliard, B., see Donas, J., et al. 180, 12

Millis, R.L., see Schleicher, D.G., et al. 187, 531

Minami, S., see Saito, T., et al. 187, 209

Minami, S., see Tomita, K., et al. 187, 215

Minn, Y.K., Greenberg, J.M.: Formaldehyde absorption and visual extinction in the dark cloud L 1709 in the Q Ophiuchi region 184, 315

Mitalas, R., Manuel, P.W.: Relation between mass and central temperature in supermassive stars 173, 244

Mitchell, D.L., see Korth, A., et al. 187, 149

Miyake, W., see Mukai, T., et al. 187, 129

Miyake, W., see Takahashi, S., et al. 187, 94 Mo, J.E., see Zhang, C.Y., et al. 178, 247

Mochkovitch, R., see Belfort, P., et al. 176, 1

Mochkovitch, R., see Isern, J., et al. 172, L23

Mochkovitch, R., see Schaeffer, R., et al. 184, L1

Mogilevsky, M., Mikhailov, Y., Molchanov, O., Grard, R., Pedersen, A., Trotignon, J.G., Béghin, C., Formisano, V., Shapiro, V., Shevchenko, V.: Identification of boundaries in the cometary environment from ac electric field measurements 187. 80

Mogilevsky, M., see Pedersen, A., et al. 187, 297

Mogilevsky, M., see Trotignon, J.G., et al. 187, 83

Mohan, V., Crézé, M.: Stellar photometry with Schmidt plates 177, 352 (68, 529)

Moiseev, I.G., see Salonen, E., et al. 185, 356 (70, 409)

Mok, Y.: Viscous damping of Alfvén normal modes in nonuniform plasmas 172, 327

Molaro, P.: Upper limit to the boron abundance in the Population II star HD 140283 183, 241

Molaro, P., see Rebolo, R., et al. 172, L17

Molaro, P., see Vladilo, G.; et al. 182, L59

Molaro, P., see Vladilo, G., et al. 185, 233

Molchanov, O., see Mogilevsky, M., et al. 187, 80

Moles, M., García-Pelayo, J.M., del Río, G., Lahulla, F.: Photometry of Zwicky compact galaxies 186, 77

Moles, M., see Aparicio, A., et al. 188, 267 (71, 297)

Möllenhoff, C., Bender, R.: A dust lane in the elliptical galaxy NGC4261 = 3C270 174, 63

Möllenhoff, C., see Bender, R. 177, 71

Möllenhoff, C., see Bender, R., et al. 177, L53

Monaghan, J.J., see Anzer, U., et al. 176, 235

Monderen, P., see Balona, L.A., et al. 181, 11 (71, 11)

Monderen, P., see Balona, L.A., et al. 186, 361 (71, 11)

Monderen, P., see Cristiani, S., et al. 177, L5

Monderen, P., see de Loore, C., et al. 178, 307

Moneti, A., see Lorenzetti, D., et al. 187, 609 Monin, J.L., Vauglin, I., Sibille, F., Audaire, L.: A new infrared

camera for the 2-5 µm range 172, 368 Monnet, G., see Boulesteix, J., et al. 178, 91

Monnet, G., see Marcelin, M., et al. 179, 101

Monsignori-Fossi, B.C., see Schmitt, J.H.M.M., et al. 179, 193

Monteiro, T.S., see Rainey, R., et al. 171, 252

Monteiro, T.S., see Rainey, R., et al. 179, 237

Montmerle, T., see Dorland, H. 177, 243

Moore, V., see Richardson, I.G., et al. 187, 276

Moorwood, A.F.M., Véron-Cetty, M.-P., Glass, I.S.: Optical and near-infrared observations of IRAS galaxies. II 184, 63

Moos, H.W., see Finkenthal, M., et al. 184, 337

Morbidelli, R., Pannunzio, R.: Search for systematic effects in photographic measurements of visual binaries 177, 351 (68, 481)

Moreels, G., Clairemidi, J., Parisot, J.P., Zucconi, J.M., Bertaux, J.L., Blamont, J.E., Hersé, M., Krasnopolsky, V.A., Moroz, V.I., Krysko, A.A., Tkachuk, A.Y., Gogoshev, M., Gogosheva, T., Werner, R., Spasov, S.: Spectrophotometry of comet P/Halley at wavelengths 275-710 nm from Vega-2 187, 551

Moreels, G., see Krasnopolsky, V.A., et al. 187, 707

Morel, P.J., see Chapellier, E., et al. 176, 255

Moreno, M.A., López, J.A.: Extended filamentary structures in the halo of the Lyra planetary nebula NGC 6720 178, 319

Moreno-Insertis, F., see Ferriz-Mas, A. 179, 268

Morgan, D.H., see Dapergolas, A., et al. 182, 359 (70, 15)

Morgan, D.H., see Kontizas, E., et al. 182, 359 (70, 1)

Morganti, R., Fanti, C., Fanti, R., Parma, P., de Ruiter, H.R.: VLA observations of low luminosity radio galaxies. V. A detailed radio study of five jets 183, 203

Morganti, R., see Parma, P., et al. 181, 244

Morossi, C., see Çacciari, C., et al. 183, 314

Morossi, C., see Ramella, M., et al. 178, 322 (69, 1)

Moroz, V.I., Combes, M., Bibring, J.P., Coron, N., Crovisier,
J., Encrenaz, T., Crifo, J.F., Sanko, N., Grigoryev, A.V.,
Bockelée-Morvan, D., Gispert, R., Nikolsky, Y.V., Emerich,
C., Lamarre, J.M., Rocard, F., Krasnopolsky, V.A., Owen,
T.: Detection of parent molecules in comet P/Halley from
the IKS-Vega experiment 187, 513

Moroz, V.I., see Emerich, C., et al. 187, 839

Moroz, V.I., see Krasnopolsky, V.A., et al. 187, 707

Moroz, V.I., see Moreels, G., et al. 187, 551

Morris, C.S., see Green, D.W.E. 187, 560

Morris, M., see Forveille, T., et al. 176, L13

Morris, M., see Likkel, L., et al. 173, L11

Morsi, H.W., Reich, W.: 32 GHz radio continuum observations of four plerionic supernova remnants 180, 282 (69, 533)

Morsi, H.W., Reich, W.: 32 GHz radio continuum observations of four shell-type supernova remnants 188, 265 (71,

Moseley, S.H., see Glaccum, W., et al. 187, 635

Motch, C., Janot-Pacheco, E.: The optical counterpart of the X-ray transient EXO 2030+375 182, L55

Motch, C., see Janot-Pacheco, E., et al. 177, 91

Motch, C., see van der Woerd, H., et al. 182, 219

Motch, C., see van Paradijs, J., et al. 184, 201

Mottinger, N.A., see Edenhofer, P., et al. 187, 712

Mouchet, M., see Bonnet-Bidaud, J.M. 188, 89

Mouchet, M., see Janot-Pacheco, E., et al. 177, 91

Mouradian, Z., Martres, M.J., Soru-Escaut, I., Gesztelyi, L.: Local rigid rotation and the emergence of Active Centres 183, 129

Muchmore, D., see Ulmschneider, P., et al. 177, 292

Mukai, S., see Kikuchi, S., et al. 187, 689

Mukai, S., see Mukai, T., et al. 187, 650

Mukai, T., Miyake, W., Terasawa, T., Kitayama, M., Hirao, K.: Spatial distribution of water-group ions near comet P/Halley observed by Suisei 187, 129

Mukai, T., Mukai, S., Kikuchi, S.: Complex refractive index of grain material deduced from the visible polarimetry of comet P/Halley 187, 650

Mukai, T., see Kikuchi, S., et al. 187, 689

Mukai, T., see Takahashi, S., et al. 187, 94

Mulholland, J.D., Gustafson, B.A.S.: Pluto eclipses of and by Charon must be unequal 171, L5

Müller, E., see Hillebrandt, W., et al. 177, L41

Müller, E., see Hillebrandt, W., et al. 180, L20

Müller, M., Weigelt, G.: High-resolution astronomical imaging by roll deconvolution of Space Telescope data 175, 312

Müller, P., Reif, K., Reich, W.: A 300 pc thermal spur associated with the H II region S 54 183, 327

Mumma, M.J., Weaver, H.A., Larson, H.P.: The ortho-para ratio of water vapor in comet P/Halley 187, 419

Mumma, M.J., see Larson, H.P., et al. 187, 391

Mumma, M.J., see Weaver, H.A., et al. 187, 411

Münch, G., see Appenzeller, I. 187, 465

Münch, G., see Neckel, T. 187, 581

Mundt, R., see Schwarz, H.E. 177, L4

Muñoz-Tuñon, C., Vilchez, J.M.: Gas kinematics in the nucleus of NGC 6946 186, 25

Muratorio, G., see Friedjung, M. 188, 100

Murray, M.A., see Skillman, E.D., et al. 185, 61

Murtagh, F., Heck, A.: An annotated bibliographical catalogue of multivariate statistical methods and of their astronomical applications (magnetic tape) 176, 191 (68, 113)

Muschietti, L., see Celnikier, L.M., et al. 181, 138

Musmann, G., see Johnstone, A., et al. 187, 47

Muthsam, H., see Stepień, K. 185, 225

Muthsam, H., see Zöchling, J. 176, 75

Myers, P.C., see Rodriguez, L.F., et al. 186, 319

Nagase, F., see Börner, G., et al. 182, 63

Nagata, T., see Tokunaga, A.T., et al. 187, 519

Nagata, T., see Yamashita, T., et al. 177, 258

Nagendra, K.N., Peraiah, A.: Some physical processes influencing the polarization of continuum and line radiation 181, 71
 Nakagawa, T., see Yumoto, K., et al. 187, 117

Nakagawa, Y., Hu, Y.Q., Wu, S.T.: The method of projected characteristics for the evolution of magnetic arches 179, 354

Nakamura, T., see Watanabe, J., et al. 187, 229

Nakano, M., see Tatematsu, K., et al. 184, 279

Nanni, D., see Iannicola, G., et al. 182, 189

Nappo, S., see McDonnell, J.A.M., et al. 187, 719

Naranan, S., see Damle, S.V., et al. 182, L1

Naranan, S., see Damle, S.V., et al. 186, L20 Natalucci, L., see Stephen, J.B., et al. 185, 343

Natta, A., see Beckwith, S. 181, 57

Natta, A., see Giovanardi, G., et al. 183, 188 (70, 269)

Navarro, R., Santamaria, J., Gómez, R.: Automatic log spectrum restoration of atmospheric seeing 174, 344

Navarro, S., see Guélin, M., et al. 182, L37

Neckel, H.: Erratum: The "Bright Stars" with UBV-colors close to those of the Sun 176, 372

Neckel, T., Münch, G.: Photometry of comet P/Halley at near post-perihelion phases 187, 581

Neckel, T., Staude, H.J., Sarcander, M., Birkle, K.: Herbig-Haro emission in two bipolar reflection nebulae 175, 231

Neff, J.E., see Rodonò, M., et al. 176, 267

Neff, J.E., see Walter, F.M., et al. 186, 241

Nejad, L.A.M., Millar, T.J.: Chemical modelling of molecular sources. V. IRC + 10216 183, 279

Nepveu, M.: The influence of O- and B-stars on star birth rate 175, 91

Nesis, A., Mattig, W., Fleig, K.H., Wiehr, E.: The gradient of the small-scale velocity fluctuation in the solar atmosphere 182, L5

Ness, N.F., see Raeder, J., et al. 187, 61

Nesterov, N.S., see Salonen, E., et al. 185, 356 (70, 409)

Netzer, H., Kollatschny, W., Fricke, K.J.: Study of multiple nucleus galaxies. II. Mkn 739 171, 41

Neubauer, F.M.: Giotto magnetic-field results on the boundaries of the pile-up region and the magnetic cavity 187, 73

Neubauer, F.M., see Glaßmeier, K.H., et al. 187, 65

Neubauer, F.M., see Neugebauer, M., et al. 187, 21

Neubauer, F.M., see Raeder, J., et al. 187, 61

Neubauer, F., see Johnstone, A., et al. 187, 47

Neugebauer, M., Lazarus, A.J., Altwegg, K., Balsiger, H., Goldstein, B.E., Goldstein, R., Neubauer, F.M., Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E.: The pick-up of cometary protons by the solar wind 187, 21

Neugebauer, M., see Balsiger, H., et al. 187, 163

Neugebauer, M., see Goldstein, B.E., et al. 187, 174

Neugebauer, M., see Goldstein, R., et al. 187, 220

Neugebauer, M., see Ip, W.-H., et al. 187, 132

Neugebauer, M., see Shelley, E.G., et al. 187, 304

Newburn, R.L., Jr., see Divine, N. 187, 867

Newkirk G, Jr., see Arnaud, J. 178, 263

Nguyen-Q-Rieu, Epchtein, N., Truong-Bach, Cohen, M.: New CO and HCN sources associated with IRAS carbon stars 180, 117

Nguyen-Q-Rieu, see Pagani, L.P. 181, 112

Nguven-Q-Rieu, see Truong-Bach, et al. 176, 285

Niarchos, P.G.: New photoelectric light curves and elements of SW Lacertae 173, 420 (67, 365)

Niarchos, P.G., see Poretti, E., et al. 178, 328 (69, 335)

Nicolet, B.: Geneva photometric boxes. V. The far-ultraviolet extinction in the solar neighbourhood 177, 233

Nicolson, G., see Padrielli, L., et al. 173, 215 (67, 63)

Niedner MB, Jr., Schwingenschuh, K.: Plasma-tail activity at the time of the Vega encounters 187, 103

Niedner MB, Jr., see Brandt, J.C. 187, 281

Niedner, M.B., see Brosius, J.W., et al. 187, 267

Niel, M., see Hudec, R., et al. 175, 71

Niemela, V.S., see Heydari-Malayeri, M., et al. 184, 300

Nieto, J.-L., Prugniel, P.: Origin and evolution of compact elliptical galaxies 186, 30

Nieto, J.-L., Llebaria, A., di Serego Alighieri, S.: Photon-counting detectors in time-resolved imaging mode: image recentring and selection algorithms 178, 301

Nieto, J.-L., see Prugniel, P., et al. 173, 49

Nieuwenhuijzen, H., see de Jager, C. 177, 217

Nieuwenhuijzen, H., see Spaan, F.H.P., et al. 185, 229

Nikolsky, Y.V., see Emerich, C., et al. 187, 839

Nikolsky, Y.V., see Moroz, V.I., et al. 187, 513

Nobili, A.M., see Carpino, M., et al. 181, 182

Nobili, A.M., see Milani, A., et al. 172, 265

Noël, F.: Equatorial coordinates of Uranus obtained with the astrolabe at Santiago 176, 194 (68, 219)

Noël, F.: Optical position of Alpha Scorpii A 177, 310

Noguchi, T., see Maehara, H., et al. 178, 221

Nollez, G., see Goldbach, C. 181, 203

Nordström, B., see Andersen, J., et al. 174, 107

Nordström, B., see Andersen, J., et al. 175, 60

Nordström, B., see Andersen, J., et al. 176, 196 (68, 347)

Nordström, B., see Grønbech, B., et al. 176, 196 (68, 331)

Nordström, B., see Maurice, E., et al. 175, 358 (67, 423)

Nørgaard-Nielsen, H.U., see Hansen, L., et al. 188, 271 (71, 465)

Norrington, P.H., see Keenan, F.P. 181, 370

North, P.: Erratum: Photometric variability of Ap and He-weak stars in clusters and associations. II 185, 358 (70, 141)

North, P.: Photometric variability of Ap and He-weak stars in clusters and associations. II 180, 278 (69, 371)

North, P.: The nature of the F str à 4077 stars 186, 191

North, P., see Mégessier, C. 183, 187 (70, 247)

Nota, A., see Barbieri, C., et al. 175, 361 (67, 551)

Notni, P., Tiersch, H.: Charging of dust particles in comets and in interplanetary space 187, 796

Nozdrachev, M., see Savin, S., et al. 187, 89

Núñez, J., see Rosselló, G., et al. 173, 217 (67, 157)

Nussbaumer, H., Storey, P.J.: Dielectronic recombination at low temperatures. IV. Recombination coefficients for neon 178, 324 (69, 123)

Nussbaumer, H., Vogel, M.: A new approach to symbiotic stars 182, 51

Oblak, E., see Manfroid, J., et al. **180**, 281 (69, 505) Oculi, L., see Cacciari, C., et al. **178**, 325 (69, 135) Odenwald, S., see Kühr, H., et al. 188, 272 (71, 493)

Ogawa, H., see Tatematsu, K., et al. 184, 279

Ögelman, H.: The 35 day cycle of Her X-1: quality of the clock mechanism 172, 79

Ögelman, H., Buccheri, R.: The harmonic structure of the February 23.316 neutrino burst from the Supernova 1987A 180, L23

Ögelman, H., Buccheri, R.: Soft X-ray imaging observations of the 39 millisecond pulsar PSR 1951+32 186, L17

Ögelman, H., Böhringer, H., Buchert, S., Çakır, S., LaBelle, J., Treumann, R.A.: Could there be terrestrial signatures of the EUV pulse from Supernova 1987 A? 183, L27

Ögelman, H., Krautter, J., Beuermann, K.: EXOSAT observations of X-rays from classical novae during the outburst stage 177, 110

Ögelman, H., see Alpar, A. 185, 196

Ögelman, H., see Alpar, A., et al. 177, 101

Ögelman, H., see Brinkmann, W. 182, 71

Oja, T.: The variable star HD 79889 184, 215

Oja, T.: UBV photometry of stars whose positions are accurately known. IV 176, 193 (68, 211)

Oja, T.: UBV photometry of stars whose positions are accurately known. V 188, 273 (71, 561)

Oja, T., see Häggkvist, L. 176, 194 (68, 259)

Okamura, S., see Maehara, H., et al. 178, 221

Olano, C.A., Pöppel, W.G.L.: Kinematical origin of the dark clouds in Taurus and of some nearby galactic clusters 179, 202

Olofsson, H., Eriksson, K., Gustafsson, B.: CO (J=1-0) observations of bright carbon stars 183, L13

Olofsson, H., see Millar, T.J., et al. 182, 143

Olofsson, H., see Truong-Bach, et al. 176, 285

Olson, R.J.M., Pasachoff, J.M.: New information on comet P/ Halley as depicted by Giotto di Bondone and other Western artists 187, 1

Olsson-Steel, D.I.: The dynamical lifetime of comet P/Halley 187, 909

Omelchenko, A., see Vaisberg, O.L., et al. 187, 183

Omelchenko, A., see Vaisberg, O.L., et al. 187, 753

Omont, A., see Bachiller, R., et al. 185, 297

Omont, A., see Forveille, T., et al. 176, L13

Omont, A., see Glassgold, A.E., et al. 180, 183

Omont, A., see Guilloteau, S., et al. 176, L24

Omont, A., see Likkel, L., et al. 173, L11

Omont, A., see Truong-Bach, et al. 176, 285

Oort, M.J.A.: A deep WSRT 21 cm survey down to 0.1 mJy in the Lynx area 188, 266 (71, 221)

Oort, M.J.A., van Langevelde, H.J.: A WSRT 21 cm deep survey of two fields in Hercules 186, 361 (71, 25)

Oort, M.J.A., Katgert, P., Steeman, F.W.M., Windhorst, R.A.: VLA high resolution observations of weak Leiden-Berkeley Deep-Survey (LBDS) sources 179, 41

Opal, C.B., McCoy, R.P., Carruthers, G.R.: Far-ultraviolet objective spectra of comet P/Halley from sounding rockets 187, 320

Orlowski, D., see Savin, S., et al. 187, 89

Orofino, V., see Bussoletti, E., et al. 183, 187 (70, 257)

Ortolani, S., Rosino, L.: White dwarfs in Omega Centauri? 185, 102

Ortolani, S., see Gratton, R.G. 175, 357 (67, 373)

Ortolani, S., see Gratton, R.G. 186, 364 (71, 131)

Ortolani, S., see Gratton, R.G., et al. 176, 188 (68, 21)

Ortolani, S., see Sabbadin, F., et al. 175, 360 (67, 541)

A

P

P

P

P

P

P

P

Östreicher, R., Seifert, W., Ruder H., Wunner, G.: Observations of magnetic hydrogen lines in the white dwarf GD 229 173, L15

Östreicher, R., see Seifert, W., et al. 183, L1

Ounnas, C., see Terzan, A., et al. 173, 419 (67, 309)

Owen, T., see Moroz, V.I., et al. 187, 513

Özel, M.E., Berkhuijsen, E.M.: The Andromeda galaxy in γrays 172, 378

Özel, M.E., see Buccheri, R., et al. 175, 353

Özel, M.E., see Hermsen, W., et al. 175, 141

Özel, M.E., see Kundt, W., et al. 177, 163

Padrielli, L., Aller, M.F., Aller, H.D., Fanti, C., Fanti, R., Ficarra, A., Gregorini, L., Mantovani, F., Nicolson, G.: Multifrequency observations of low frequency variable sources: a statistical analysis 173, 215 (67, 63)

Padrielli, L., see Rogora, A., et al. 173, 418 (67, 267)

Paerels, F., see van der Woerd, H., et al. 182, 219

Paez, E., see Caputo, F., et al. 176, 192 (68, 119)

Paez, E., see Caputo, F., et al. 183, 228

Paez, E., see Martinez Roger, C. 184, 155

Pagani, L.P., Nguyen-Q-Rieu: CO and NH₃ detection of the cone in NGC 2264 181, 112

Paganini, R., Straumann, N., Wyler, D.: Rotational curves of galaxies and neutrino halos 177, 84

Pahlke, K.-D., see Grossmann-Doerth, U., et al. 176, 139

Pakkert, J.W., Martens, P.C.H., Verhulst, F.: The thermal stability of coronal loops by nonlinear diffusion asymptotics 179, 285

Pakull, M.W., see Reinsch, K. 177, L43

Pakull, M., see van Paradijs, J., et al. 184, 201

Palagi, F., see Falchi, A., et al. 187, 462

Palla, F., see Giovanardi, G., et al. 183, 188 (70, 269)

Pallavicini, R., Cerruti-Sola, M., Duncan, D.K.: Lithium abundances of southern F, G and K dwarfs and subgiants 174, 116

Pallavicini, R., see Schmitt, J.H.M.M., et al. 179, 193

Pallé, P.L., see Jimenez, A., et al. 172, 323

Paloschi, S., see Cavallini, F., et al. 184, 386

Palouš, J., see Lyngå, G. 188, 35

Palouš, J., see Tenorio-Tagle, G. 186, 287

Palumbo, G.G.C., see Santagata, N., et al. 183, 185 (70, 189)

Palumbo, G.G.C., see Santagata, N., et al. 183, 186 (70, 191)

Panagia, N., Gilmozzi, R., Clavel, J., Barylak, M., Gonzalez-Riesta, R., Lloyd, C., Sanz Fernandez de Corboda, L., Wamsteker, W.: Photometric properties of SN 1987 A and other sources in the same field 177, L25

Panagia, N., see Cassatella, A., et al. 177, L29

Panagia, N., see de Boer, K.S., et al. 177, L37

Panagia, N., see Fransson, C., et al. 177, L33

Panagia, N., see Wamsteker, W., et al. 177, L21

Panjaitan, E., see van Albada-van Dien, E. 176, 191 (68, 117)

Pankiewicz, G.S.A., see McDonnell, J.A.M., et al. 187, 719

Pankonin, V., see Roelfsema, P.R., et al. 175, 219

Pannunzio, R., see Morbidelli, R. 177, 351 (68, 481)

Panov, V.N., see Mazets, E.P., et al. 187, 699

Pansecchi, L., Fulle, M., Sedmak, G.: The nature of two anomalous structures observed in the dust tail of comet Bennett 1970 II: a possible Neck-Line Structure 176, 358

Pantano, O., see Bonometto, S.A. 176, L9

Pantoja, C.A., see Altschuler, D.R., et al. 177, 22

Papaioannou, S., see Athanassoula, E., et al. 179, 23

Papoular, R., see Baron, Y., et al. 186, 271

Papoular, R., see Gal, O., et al. 183, 29

Paredes, J.M., Estalella, R., Rius, A.: Flux density and polarization observations of Hipparcos radio stars 186, 177

Paredes, J.M., see Rosselló, G., et al. 173, 217 (67, 157)

Paresce, F., see Jakobsen, P., et al. 183, 335

Parisot, J.P., see Krasnopolsky, V.A., et al. 187, 707

Parisot, J.P., see Moreels, G., et al. 187, 551

Parker, Q.A., Beard, S.M., MacGillivray, H.T.: Detection of features in the large-scale galaxy distribution from wide-angle samples of objective-prism spectra 173, L5

Parma, P., Fanti, C., Fanti, R., Morganti, R., de Ruiter, H.R.: VLA observations of low-luminosity radio galaxies. VI. Discussion of radio jets 181, 244

Parma, P., see Fanti, C., et al. 178, 323 (69, 57)

Parma, P., see Morganti, R., et al. 183, 203

Parmar, A.N., see Barr, P., et al. 176, 69

Parravano, A.: Condensation of small spherical non-gravitationally bound cool clouds 172, 280

Pasachoff, J.M., see Olson, R.J.M. 187, 1

Pascoli, G.: Origin of bipolarity in planetary nebulae (Text in French) 180, 191

Pascoli, G., see Louise, R., et al. 183, 186 (70, 201)

Pasian, F., see Ramella, M., et al. 178, 322 (69, 1)

Patriarchi, P., see Feldman, P.D., et al. 187, 325

Paturel, G., Fouqué, P., Lauberts, A., Valentijn, E.A., Corwin, H.G., de Vaucouleurs, G.: Standard photometric diameters of galaxies. III. Reduction of the diameters in the ESO-B and SGC catalogues to the standard diameter system at the 25 mag arcsec⁻² brightness level **184**, 86

Paturel, G., see Bottinelli, L., et al. 181, 1

Pauldrach, A.: Radiation driven winds of hot luminous stars. III. Detailed statistical equilibrium calculations for hydrogen to zinc 183, 295

Pauldrach, A., see Kudritzki, R.P., et al. 173, 293

Pauzat, F., see Talbi, D. 181, 394

Pavlovski, K., see Maitzen, H.M. 178, 313

Pavlovski, K., see Maitzen, H.M. 188, 271 (71, 441)

Pazzani, V., see Butler, C.J., et al. 174, 139

Pearson, J.C., see Woodward, D.R., et al. 186, L14

Pedersen, A., Grard, R., Trotignon, J.G., Béghin, C., Mikhailov, Y., Mogilevsky, M.: Measurements of low energy electrons and spacecraft potentials near comet P/Halley 187, 297

Pedersen, A., see Mogilevsky, M., et al. 187, 80

Pedersen, A., see Trotignon, J.G., et al. 187, 83

Pedersen, H., see Festou, M.C., et al. 174, 299

Pedersen, H., see Lamy, P.L., et al. 187, 661

Pedersen, H., see Schaefer, B.E., et al. 174, 338

Pedersen, H., see van Amerongen, S., et al. 185, 147

Pédoussaut, A., Carquillat, J.M., Ginestet, N.: Contribution to the study of F, G, K, M binaries. IV. Orbital elements of the spectroscopic binary HD 23838 (Text in French) 175, 136

Pégourié, B., see Baron, Y., et al. 186, 271

Pégourié, B., see Gal, O., et al. 183, 29

Peimbert, M., see Iye, M., et al. 186, 84

Pelat, D., Alloin, D., Bica, E.: Lines of high excitation in NGC 4151: new measurements of [Fex] and [Fexiv] 182, 9

Pellat, R., see Hansel, D., et al. 171, 1

Penzhorn, R.-D., see Beer, H. 174, 323

Peraiah, A., Varghese, B.A., Rao, M.S.: Effects of dust on the formation of lines in an expanding spherical medium 180, 278 (69, 345)

Peraiah, A., see Nagendra, K.N. 181, 71

Pérault, M., see Bonazzola, S., et al. 172, 293

Pérault, M., see Ryter, C., et al. 186, 312

Perinotto, M., see Lucy, L.B. 188, 125

Perko, J.S.: Solar modulation of galactic antiprotons 184, 119

Pernier, B., see Manfroid, J., et al. 180, 281 (69, 505)

Perozzi, E., see Carusi, A., et al. 187, 899 Perrier, C., see Chelli, A., et al. 177, 51

Perrier, C., see Mariotti, J.-M., et al. 182, L11

Perrin, J.M., see Lamy, P.L., et al. 187, 767

Perrin, M.-N., Karoji, H.: Stellar radius determination from IRAS 12 μm fluxes 172, 235

Perry, C.H., see McDonnell, J.A.M., et al. 187, 719

Perryman, M.A.C., see Colina, L., et al. 178, 51

Perryman, M.A.C., see Colina, L., et al. 186, 39

Persi, P., Ferrari-Toniolo, M., Shivanandan, K., Spinoglio, L.: Near-IR observations of Sharpless regions. I. S269, S271, S307 and S311 185, 356 (70, 437)

Persi, P., see Busso, M., et al. 183, 83

Peters III, W.L., see Gerin, M., et al. 173, L1

Petersen, J.O., Andreasen, G.K.: Studies of Cepheid-type variability. V. The Fourier phases of Type II Cepheids with periods of 1–3 days 176, 183

Petersen, J.O., see Andreasen, G.K. 180, 129

Peterson, R.C., see Spite, F., et al. 171, L8

Peterson, R.C., see Spite, M., et al. 172, L9

Petford, A.D., see Blackwell, D.E., et al. 180, 229

Petit, H., see Courtès, G., et al. 174, 28

Petit, J.-M., Hénon, M.: A numerical simulation of planetary rings. I. Binary encounters 173, 389

Petit, J.-M., Hénon, M.: A numerical simulation of planetary rings. II. Monte Carlo model 188, 198

Petit, M., see Courtès, G., et al. 174, 28

Peton, A., see Fehrenbach, C., et al. 188, 267 (71, 263)

Peton, A., see Fehrenbach, C., et al. 188, 267 (71, 275)

Petrov, G.G., see Mazets, E.P., et al. 187, 699

Pettersen, B.R., Hawley, S.L.: Discovery of flare activity on BD+3°4138 B 181, 402

Pettersen, B.R., Lambert, D.L., Tomkin, J., Sandmann, W.H., Lin, H.: The rapidly rotating spotted red dwarf flare star Gliese 890 183, 66

Pettersson, B.: An objective-prism survey for Hα-emission-line stars of a field in Puppis 182, 361 (70, 69)

Pettersson, B.: T Tauri stars and dust clouds in a region of the Gum nebula 171, 101

Peyrin, Y., see Robin, A., et al. 176, 189 (68, 63)

Pfau, W., Piirola, V., Reimann, H.-G.: Interstellar extinction and polarimetric properties of the star HD 200775 179, 134

Pfenniger, D.: Complex instability around the rotation axis of stellar systems. II. Rotating oscillators 180, 79

Pfenniger, D., see Martinet, L. 173, 81

Pfleiderer, J., Pfleiderer, M., Hanslmeier, A.: Photoelectric five-coulour photometry of the asteroids 16 Psyche, 201 Penelope, and 702 Alauda 178, 324 (69, 117)

Pfleiderer, M., see Pfleiderer, J., et al. 178, 324 (69, 117)

Pham-Van, J., see Billaud, G., et al. 176, 190 (68, 67)

Phillipps, S., see Daly, P.N., et al. 176, 188 (68, 33)

Picart, J., see Hoang-Binh, D., et al. 181, 134

Picat, J.P., see Soucail, G., et al. 172, L14

Picat, J.P., see Soucail, G., et al. 184, 361

Picazzio, E., see Epchtein, N., et al. 186, 362 (71, 39)

Picazzio, E., see Epchtein, N., et al. 188, 269 (71, 411)

Piccolo, F., see Caloi, V., et al. 173, 416 (67, 181)

Pidatella, R.M., see Belvedere, G., et al. 177, 183

Pierre, M.: A population of faint blue stars in a southern external part of the Large Magellanic Cloud 175, 54

Pietsch, W., see Gottwald, M., et al. 175, 45

Pietsch, W., see Schaaf, R., et al. 174, 357

Piirola, V., Reiz, A., Coyne, G.V.: Five-colour (UBVRI) polarimetry of H 0139-68 = BL Hydri 185, 189

Piirola, V., Reiz, A., Coyne, G.V.: Simultaneous five-colour (UBVRI) polarimetry of EF Eri 186, 120

Piirola, V., see Huovelin, J., et al. 176, 83

Piirola, V., see Pfau, W., et al. 179, 134

Pike, C.D., see Stickland, D.J., et al. 184, 185

Pilbratt, G., Booth, R.S., Porcas, R.W.: EVN and MERLIN observations of five superluminal radio sources 173, 12

Pineau des Forêts, G., see Chièze, J.-P. 183, 98

Pines, D., see Alpar, A., et al. 177, 101

Pinotsis, A.D.: Successive bifurcations and evolution of double and quadruple periodic orbits in the restricted three-body problem 174, 317

Pizzichini, G., see Schaefer, B.E., et al. 174, 338

Planesas, P., see Bujarrabal, V., et al. 175, 164

Pochet, J.M., see Billaud, G., et al. 176, 190 (68, 67)

Pollard, G., see Barr, P., et al. 176, 69

Pollock, A.M.T.: New evidence at X-ray and COS-B γ-ray frequencies for non-thermal phenomena in Wolf-Rayet stars 171, 135

Pollock, A.M.T., see Hermsen, W., et al. 175, 141

Poma, A., see Chiumiento, G., et al. 183, 403

Pomerantz, M., see Fossat, E., et al. 177, L47.

Popović, M.M., see Dimitrijević, M.S., et al. **182**, 360 (70, 57)

Pöppel, W.G.L., see Olano, C.A. 179, 202

Porcas, R.W., see Pilbratt, G., et al. 173, 12

Poretti, E., Mantegazza, L., Antonello, E.: HD 37819 \equiv V 356 Aur, a double-mode δ Sct star with an unusual period ratio 181, 273

Poretti, E., Niarchos, P.G., Mantegazza, L., Antonello, E., Conconi, P.: Photometry and elements of the pre-contact system FO Vir 178, 328 (69, 335)

Porsche, H., see Edenhofer, P., et al. 187, 712

Postnov, K.A., see Lipunov, V.M., et al. 176, L1

Postnov, K.A., see Shakura, N.I. 183, L21

Pottasch, S.R., Bignell, C., Zijlstra, A.: Two new OH emitting planetary nebulae 177, L49

Pottasch, S.R., see Acker, A., et al. 186, 365 (71, 163)

Pottasch, S.R., see Antonopoulou, E. 173, 108

Pottasch, S.R., see Leene, A. 173, 145

Pottasch, S.R., see Taylor, A.R. 176, L5

Pottasch, S.R., see Taylor, A.R., et al. 171, 178

Pottasch, S.R., see Taylor, A.R., et al. 183, 38

Pottasch, S.R., see Zhang, C.Y., et al. 178, 247

Poulsen, J.M., see Schaefer, B.E., et al. 174, 338

Praderie, F., see Catala, C., et al. 182, 115

Praderie, F., see Gondoin, P., et al. 174, 187

Preuss, E., see Götz, M.M.A., et al. 176, 171

Prévot, L., see Cacciari, C., et al. 178, 325 (69, 135)

Prévot, L., see Maurice, E., et al. 175, 358 (67, 423)

Prévot, L., see Robin, A., et al. 176, 189 (68, 63)

Priedhorsky, W., Marshall, F.J., Hearn, D.R.: Disappearance of periodic X-ray minima in AM Her 173, 95

Prieto, M., see Kidger, M.R., et al. 187, 363

Prilutski, O.F., see Sagdeev, R.Z., et al. 187, 179

Prilutsky, O.F., see Berezinsky, V.S. 175, 309

Prisant, M.G., Jackson, W.M.: A rotational-state population

analysis of the high-resolution IUE observation of CS emission in comet P/Halley 187, 489

Prokhorov, M.E., see Lipunov, V.M., et al. 176, L1

Proust, D., Talavera, A., Salvador Sole, E., Mazure, A., Capelato, H.V.: New measurements of radial velocities in clusters of galaxies 173, 215 (67, 57)

Prugniel, P., Nieto, J.-L., Simien, F.: Photometric and spectroscopic investigation of three close companions of M 87 173, 49

Prugniel, P., see Nieto, J.-L. 186, 30

Puel, F., see Festou, M.C., et al. 187, 575

Puget, J.L., see Bonazzola, S., et al. 172, 293

Puget, J.L., see Ryter, C., et al. 186, 312

Puls, J.: Radiation-driven winds of hot luminous stars. IV. The influence of multi-line effects 184, 227

Puls, J., see Kudritzki, R.P., et al. 173, 293

Pylyser, E., see de Kool, M., et al. 183, 47

Qiu, P.Z., see Wu, M.C. 187, 264

Quarta, M.L., see Caputo, F., et al. 176, 192 (68, 119)

Quarta, M.L., see Castellani, V. 186, 361 (71, 1)

Quarta, M.L., see Gratton, R.G., et al. 176, 188 (68, 21)

Quenby, J.J., see Lieu, R., et al. 176, L21

Quintana, H., see Cristiani, S., et al. 179, 108

Raadu, M.A., see Démoulin, P., et al. 183, 142

Raadu, M., see Zuccarello, F., et al. 180, 218

Rabattu, X., see Cristiani, S., et al. 177, L5

Rabbia, Y., see Di Benedetto, G.P. 188, 114

Rabilizirov, R., see Wallis, M.K., et al. 187, 801

Rabinowitz, D., see Simpson, J.A., et al. 187, 742

Radons, G., see Krautter, J., et al. 181, 373

Raeder, J., Neubauer, F.M., Ness, N.F., Burlaga, L.F.: Macroscopic perturbations of the IMF by P/Halley as seen by the Giotto magnetometer 187, 61

Rainey, R., White, G.J., Gatley, I., Hayashi, S.S., Kaifu, N., Griffin, M.J., Monteiro, T.S., Cronin, N.J., Scivetti, A.: CO *J*=3-2 observations of M17: the interaction of an expanding shock front with molecular clouds **171**, 252

Rainey, R., White, G.J., Richardson, K.J., Griffin, M.J., Cronin, N.J., Monteiro, T.S., Hilton, J.: Millimetre and submillimetre molecular line observations of the southwest lobe of L 1551: evidence of a shell structure 179, 237

Rainey, R., see White, G.J., et al. 173, 337

Rajamohan, R., see Sivaraman, K.R., et al. 187, 543

Ramana Murthy, P.V., see Bhat, P.N., et al. 171, 84

Ramana Murthy, P.V., see Bhat, P.N., et al. 178, 242

Ramani, A., see Hansel, D., et al. 171, 1

Ramella, M., Castelli, F., Malagnini, M.L., Morossi, C., Pasian, F.: Identification lists of the far UV spectra of 7 solar chemical composition main sequence stars in the spectral range B2-B9.5 178, 322 (69, 1)

Ramella, M., Giuricin, G., Mardirossian, F., Mezzetti, M.: Morphological population and first-ranked galaxy morphology in loose groups of galaxies 188, 1

Ramsey, B.D., see Campins, H., et al. 187, 601

Rana, N.C.: An investigation of the motions of the node and perihelion of Mercury 181, 195

Rana, N.C.: Mass function of stars in the solar neighbourhood 184, 104

Rank, D.M., see Bregman, J.D., et al. 187, 616

Rankin, J.M., see Weisberg, J.M., et al. 186, 307

Rao, A.R., Vahia, M.N.: Fast transient X-rays from flare stars and RS CVn binaries 188, 109 Rao, M.S., see Peraiah, A., et al. 180, 278 (69, 345)

Rapaport, M., Requième, Y., Mazurier, J.M., Francou, G.: Meridian observations of Uranus and Neptune at Bordeaux Observatory. Comparison with ephemerides 179, 317

Ray, A., Kembhavi, A.K., Antia, H.M.: Evolution of stellar binaries formed by tidal capture 184, 164

Ray, T.P.: CCD observations of jets from young stars 171, 145

Rebeirot, E., see Maurice, E., et al. 175, 358 (67, 423)

Rebeirot, E., see Robin, A., et al. 176, 189 (68, 63)

Rebolo, R., Beckman, J., Molaro, P.: The lithium abundance in the extremely metal-deficient dwarf G 64-12 172, L17

Reboul, H., Vanderriest, C., Fringant, A.M., Cayrel, R.: First results of a spectroscopic search for gravitational mirages 177, 337

Reglero, V., Giménez, A., de Castro, E., Fernandez-Figueroa,
 M.J.: A wbyβ survey of northern-hemisphere active binaries.
 I. The observations 188, 270 (71, 421)

Rego, M., see Aragón, A., et al. 185, 97

Rego, M., see González-Riestra, R., et al. 186, 64

Reich, P., see Fürst, E., et al. 180, 279 (69, 403)

Reich, W., see Fürst, E., et al. 180, 279 (69, 403)

Reich, W., see Fürst, E., et al. 186, 362 (71, 63)

Reich, W., see Junkes, N., et al. 180, 280 (69, 451)

Reich, W., see Morsi, H.W. 180, 282 (69, 533

Reich, W., see Morsi, H.W. 188, 265 (71, 189)

Reich, W., see Müller, P., et al. 183, 327

Reid, N., King, D.L., Argyle, R.W.: GALAXY and the Galaxy. The RGO selected area proper motion survey. I. Photometric sequences in selected areas 188, 269 (71, 397)

Reif, K., see Mebold, U., et al. 180, 213

Reif, K., see Müller, P., et al. 183, 327

Reimann, H.-G., see Pfau, W., et al. 179, 134

Reimers, D., see Hagen, H.-J., et al. 183, L7

Reimers, D., see Hagen, H.-J., et al. 184, 256

Reinheimer, T., Weigelt, G.: Optical long-baseline interferometry and aperture synthesis by speckle masking 176, L17

Reinsch, K., Pakull, M.W.: Physical parameters of the Pluto-Charon system 177, L43

Reipurth, B., see Grønbech, B., et al. 176, 196 (68, 331)

Reipurth, B., see Sandell, G., et al. 181, 283

Reitermann, A., see Balona, L.A., et al. 181, 11 (71, 11)

Reitermann, A., see Balona, L.A., et al. 186, 361 (71, 11)

Reitsema, H.J., see Keller, H.U., et al. 187, 807

Reitsema, H., see Schwarz, G., et al. 187, 847

Reiz, A., see Piirola, V., et al. 185, 189

Reiz, A., see Piirola, V., et al. 186, 120

Rème, H., Sauvaud, J.A., d'Uston, C., Cros, A., Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Korth, A., Richter, A.K., Mendis, D.A.: General features of comet P/Halley: solar wind interaction from plasma measurements 187, 33

Rème, H., see Anderson, K.A., et al. 187, 290

Rème, H., see d'Uston, C., et al. 187, 137

Rème, H., see Korth, A., et al. 187, 149

Remizov, A.P., see Gribov, B.E., et al. 187, 293

Remizov, A.P., see Gringauz, K.I., et al. 187, 191

Remizov, A.P., see Gringauz, K.I., et al. 187, 287

Remizov, A.P., see Verigin, M.I., et al. 187, 121

Rengarajan, T.N., see Verma, R.P., et al. 177, 346

Renzini, A.: Effects of cosmions in the Sun and in globular cluster stars 171, 121

Renzini, A.: Some embarrassments in current treatments of convective overshooting 188, 49

Requième, Y., see Rapaport, M., et al. 179, 317

Rettenmund, U., see Balsiger, H., et al. 187, 163

Rettenmund, U., see Goldstein, B.E., et al. 187, 174

Rettig, T.W., Kern, J.R., Ruchti, R., Baumbaugh, B., Baumbaugh, A.E., Knickerbocker, K.L., Dawe, J.: Observations of the coma of comet P/Halley and the outburst of 1986 March 24–25 (UT) 187, 249

Rhee, G.F.R.N., Katgert, P.: A study of the elongation of Abell clusters. I. A sample of 37 clusters studied earlier by Binggeli

and Struble & Peebles 183, 217

Richardson, I.G., Cowley, S.W.H., Moore, V., Staines, K., Hynds, R.J., Sanderson, T.R., Wenzel, K.-P., Daly, P.W.: Energy spectra of energetic ions in the vicinity of comet P/Giacobini-Zinner 187, 276

Richardson, I.G., see Sanderson, T.R., et al. 187, 125

Richardson, J.M., see Marsh, K.A. 182, 174

Richardson, K.J., White, G.J., Avery, L.W., Woodsworth, A.W.: Submillimetre CO observations of the Cepheus A outflow 174, 197

Richardson, K.J., see Rainey, R., et al. 179, 237

Richardson, K.M., see Mayer, C.J., et al. 180, 73

Richter, A.K., see Anderson, K.A., et al. 187, 290

Richter, A.K., see Curtis, C.C., et al. 187, 360

Richter, A.K., see d'Uston, C., et al. 187, 137

Richter, A.K., see Gribov, B.E., et al. 187, 293

Richter, A.K., see Gringauz, K.I., et al. 187, 191

Richter, A.K., see Gringauz, K.I., et al. 187, 287

Richter, A.K., see Gringauz, R.I., et al. 187, 287 Richter, A.K., see Hsieh, K.C., et al. 187, 375

Richter, A.K., see Hsien, K.C., et al. 187, 37

Richter, A.K., see Korth, A., et al. 187, 149

Richter, A.K., see Rème, H., et al. 187, 33 Richter, A.K., see Verigin, M.I., et al. 187, 121

Richter, A.K., Keller, H.U.: Density and brightness distribution

of cometary dust tails 171, 317

Richter, O.-G.: Redshifts for galaxies in southern clusters 173, 418 (67, 261)

Richter, O.-G.: The Hydra I cluster of galaxies. III. New redshifts 173, 417 (67, 237)

Richter, O.-G., Huchtmeier, W.K.: HI observations of galaxies in between the Local and the Hydra/Centaurus superclusters 177, 351 (68, 427)

Richter, O.-G., Tammann, G.A., Huchtmeier, W.K.: H_I observations of galaxies in a catalog of nearby galaxies. II. The motion of the Sun and the Galaxy and the velocity dispersion of "field" galaxies 171, 33

Richtler, T., see de Boer, K.S., et al. 177, L37

Rickman, H., Sitarski, G., Todorovic-Juchnievicz, B.: Nongravitational motion of comet P/Kopff during 1958–1983 188, 206

Rickman, H., see Lagerkvist, C.-I., et al. 182, 359 (70, 21)

Riedler, W., see Gribov, B.E., et al. 187, 293

Riedler, W., see Yeroshenko, Y.G., et al. 187, 69

Riffert, H.: Cyclotron line formation in a hot plasma including Compton cooling 172, 241

Righini, A., see Cavallini, F., et al. 173, 155

Righini, A., see Cavallini, F., et al. 173, 161

Righini, A., see Cavallini, F., et al. 184, 386

Riley, P.W., see Matthews, N., et al. 184, 284

Rindler, W., see Ehlers, J. 174, 1

Ringuelet, A.E., Rovira, M., Cidale, L., Sahade, J.: Different regions of line formation in the envelope of the early emission line star HD 190073 183, 287

Ringwald, F.A., see Corso, G.J., et al. 183, L9

Ritter, H.: Catalogue of cataclysmic binaries, low-mass X-ray

binaries and related objects (fourth edition) 185, 355 (70, 335)

Rius, A., see Paredes, J.M., et al. 186, 177

Robberto, M., see Busso, M., et al. 183, 83

Robe, H.: Periodic orbits in a triaxial galaxy. III. Their stability 182, 202

Roberti, G., see Gomez, M.T., et al. 188, 169

Robin, A., Martin, N., Peyrin, Y., Prévot, L., Rebeirot, E., Rousseau, J.: BVR photometry of late-type stars in the direction of the Large Magellanic Cloud 176, 189 (68, 63)

Robin, A.C., see Bienaymé, O., et al. 180, 94

Robin, A.C., see Bienaymé, O., et al. 186, 359

Robinson, A., see Binette, L. 177, 11

Robson, E.I., see Courvoisier, T.J.-L., et al. 176, 197

Roca Cortés, T., see Jimenez, A., et al. 172, 323

Rocard, F., see Emerich, C., et al. 187, 839

Rocard, F., see Moroz, V.I., et al. 187, 513

Rocca, A.: Forced oscillations in a rotating star: low frequency gravity modes 175, 81

Rocca-Volmerange, B., Guiderdoni, B.: Star formation in nuclei of S0/E galaxies 175, 15

Rocca-Volmerange, B., see Guiderdoni, B. 186, 1

Rochester, G.K., see Sumner, T.J., et al. 188, 273 (71, 557)

Rodonò, M., Byrne, P.B., Neff, J.E., Linsky, J.L., Simon, T.,
Butler, C.J., Catalano, S., Cutispoto, G., Doyle, J.G., Andrews, A.D., Gibson, D.M.: Rotational modulation and flares on RS CVn and BY Dra stars. III. IUE observations of V711

Tau (= HR 1099), II Peg, and AR Lac 176, 267 Rodono, M., see Haisch, B.M., et al. 181, 96

Rodonò, M., see Butler, C.J., et al. 174, 139

Rodonò, M., see Byrne, P.B., et al. 180, 172

Rodonò, M., see Walter, F.M., et al. 186, 241

Rodriguez, L.F., Haschick, A.D., Torrelles, J.M., Myers, P.C.: Water vapor masers associated with young visible stars 186, 319

Rodríguez, L.F., see Anglada, G., et al. 186, 280

Rodríguez, L.F., see Torrelles, J.M., et al. 177, 171

Roelfsema, P.R., Goss, W.M., Whiteoak, J.B., Gardner, F.F., Pankonin, V.: VLA hydrogen and helium 76 α line observations of Sagittarius B2 175, 219

Roelfsema, P.R., Goss, W.M., Wilson, T.L.: Carbon radio recombination line observations of W3 174, 232

Roettger, E.E., see McFadden, L.A., et al. 187, 333

Rogers, M.J., see Mayer, C.J., et al. 180, 73

Rogora, A., Padrielli, L., de Ruiter, H.R.: VLA observations of B2 quasars, II. Compact sources 173, 418 (67, 267)

Rohlfs, K., Kreitschmann, J.: Kinematics and physical parameters of neutral hydrogen in the inner Galaxy 178, 95

Rolland, A., see Clausen, J.V., et al. 176, 192 (68, 141)

Rolland, L., see Fehrenbach, C., et al. 188, 267 (71, 263)

Rönnäng, B., see Tang, G., et al. 185, 87

Roos, N., Meurs, E.J.A.: Alternating side ejection or precession of jets in radio sources 181, 14

Rosenbauer, H., see Allen, M., et al. 187, 502

Rosenbauer, H., see Balsiger, H., et al. 187, 163

Rosenbauer, H., see Goldstein, B.E., et al. 187, 174

Rosenbauer, H., see Goldstein, R., et al. 187, 220

Rosenbauer, H., see Ip, W.-H., et al. 187, 132

Rosenbauer, H., see Jockers, K., et al. 187, 256

Rosenbauer, H., see Neugebauer, M., et al. 187, 21

Rosenbauer, H., see Schwenn, R., et al. 187, 160

Rosenbauer, H., see Wilken, B., et al. 187, 153

Röser, S.: Catalogue of astrometric observations of Comet P/ Halley at its apparition 1909–1911 188, 268 (71, 363) Röser, S., see Scholl, H., et al. (10) 179, 311

Rosino, L., see Ortolani, S. 185, 102

Rosselló, G., Blanch, R., Figueras, F., Jordi, C., Núñez, J., Paredes, J.M., Sala, F., Torra, J.: UBVRI photoelectric photometry of nearby stars. II. 173, 217 (67, 157)

Rossi, C., see Vittone, A.A., et al. 179, 157

Rossi, I., see Cacciari, C., et al. 183, 314

Roueff, E., see Czarny, J., et al. 188, 155

Roueff, E., see Le Bourlot, J., et al. 188, 137

Rousseau, J., see Maurice, E., et al. 175, 358 (67, 423)

Rousseau, J., see Robin, A., et al. 176, 189 (68, 63)

Rousseeuw, P., see de Loore, C., et al. 178, 307

Rovira, M., see Ringuelet, A.E., et al. 183, 287

Rovithis, P., Rovithis-Livaniou, H.: The double system HD 135421 **182**, 360 (70, 63)

Rovithis-Livaniou, H., see Rovithis, P. 182, 360 (70, 63)

Różyczka, M., Tenorio-Tagle, G.: The hydrodynamics of clouds overtaken by supernova remnants. II. Attrition shocks, condensation and ejection of clouds 176, 329

Różyczka, M., see Tenorio-Tagle, G., et al. 179, 219

Różyczka, M., see Tenorio-Tagle, G., et al. 182, 120

Ruchti, R., see Rettig, T.W., et al. 187, 249

Ruder, H., see Östreicher, R., et al. 173, L15

Ruder, H., see Seifert, W., et al. 183, L1

Ruffini, R., Song, D.J.: Cosmological constraints of the "inos" composing galactic halos 179, 3

Rusconi, L., see Doazan, V., et al. 173, L8

Rusconi, L., see Doazan, V., et al. 182, L25

Russel, C.T., see Yeroshenko, Y.G., et al. 187, 69

Russo, G., see Milano, L., et al. 183, 265

Rutten, R.G.M.: Magnetic structure in cool stars. XII. Chromospheric activity and rotation of giants and dwarfs 177, 131

Rutten, R.G.M., Schrijver, C.J.: Magnetic structure in cool stars. XIII. Appropriate units for the rotation-activity relation 177, 155

Rutten, R.G.M., see Schrijver, C.J. 177, 143

Ruzmaikin, A., see Baryshnikova, Y., et al. 177, 27

Ryter, C., Puget, J.L., Pérault, M.: Infrared radiation of very small dust grains in the Rho Ophiuchi region 186, 312

Sabbadin, F., Cappellaro, E., Turatto, M.: The Type-I planetary nebula Humason 1–2 182, 305

Sabbadin, F., Falomo, R., Ortolani, S.: Spectroscopic observations of genuine and misclassified planetary nebulae 175, 360 (67, 541)

Sacco, B., see Buccheri, R., et al. 175, 353

Sacco, B., see Clear, J., et al. 174, 85

Sagdeev, R.Z., Kissel, J., Evlanov, E.N., Fomenkova, M.N., Inogamov, N.A., Khromov, V.N., Managadze, G.G., Prilutski, O.F., Shapiro, V.D., Shutyaev, I.Y., Zubkov, B.V.: The dependence of mass resolution and sensitivity of the PUMA instrument on the energy spread of ions produced by hypervelocity impacts 187, 179

Sagdeev, R.Z., Smith, B., Szegö, K., Larson, S., Tóth, I., Merényi, E., Avanesov, G.A., Krasikov, V.A., Shamis, V.A., Tarnapolski, V.I.: The spatial distribution of dust jets seen during

the Vega-2 flyby 187, 835

Sagdeev, R.Z., see Gribov, B.E., et al. 187, 293

Sagdeev, R.Z., see Mazets, E.P., et al. 187, 699

Sagdeev, R.Z., see Simpson, J.A., et al. 187, 742

Sahade, J., see Ringuelet, A.E., et al. 183, 287

Sahal-Bréchot, S., see Landi Degl'Innocenti, E., et al. 186, 335

Sahu, K.C., see Danziger, I.J., et al. 177, L13

Saito, K., see Saito, T., et al. 187, 201

Saito, K., see Saito, T., et al. 187, 209

Saito, T., Saito, K., Aoki, T., Yumoto, K.: Possible models on disturbances of the plasma tail of comet P/Halley during the 1985–1986 apparition 187, 201

Saito, T., Yumoto, K., Hirao, K., Minami, S., Saito, K., Smith,
 E.: Structure and dynamics of the plasma tail of comet P/
 Halley. I. Knot event on December 31, 1985 187, 209

Saito, T., see Tomita, K., et al. 187, 215

Saito, T., see Yumoto, K., et al. 187, 117

Sakashita, S., see Hanami, H. 181, 343

Sala, F., see Rosselló, G., et al. 173, 217 (67, 157)

Salati, P., Delbourgo-Salvador, P., Audouze, J.: Photinos and primordial nucleosynthesis 173, 1

Salonen, E., Teräsranta, H., Urpo, S., Tiuri, M., Moiseev, I.G., Nesterov, N.S., Valtaoja, E., Haarla, S., Lehto, H., Valtaoja, L., Teerikorpi, P., Valtonen, M.: Five years monitoring of extragalactic radio sources. I. Observations at 12, 22 and 37 GHz 185, 356 (70, 409)

Salonen, E., see Teräsranta, H., et al. 186, 364 (71, 125)

Salter, C.J., see Chini, R., et al. 182, L63

Salvador Sole, E., see Proust, D., et al. 173, 215 (67, 57)

Sanchez-Lavega, A., Battaner, E.: The nature of Saturn's atmospheric Great White Spots 185, 315

Sandell, G., Reipurth, B., Gahm, G.: Low-mass star formation in the high galactic latitude dark cloud L 1642 181, 283

Sandell, G., Stevens, M.A., Heiles, C.: Dark clouds in front of globular clusters 179, 255

Sandell, G., Zealey, W.J., Williams, P.M., Taylor, K.N.R., Storey, J.M.V.: Molecular hydrogen emission in Herbig-Haro complexes. II. The high latitude nebulosities HH 52/53/54 182 237

Sanderson, T.R., Wenzel, K.-P., Daly, P.W., Cowley, S.W.H., Hynds, R.J., Richardson, I.G., Smith, E.J., Bame, S.J., Zwickl, R.D.: Observations of heavy energetic ions far upstream from comet P/Halley 187, 125

Sanderson, T.R., see Richardson, I.G., et al. 187, 276

Sandmann, W.H., see Pettersen, B.R., et al. 183, 66

Sandqvist, A., see Hummel, E., et al. 172, 51

Sanduleak, N., see Shore, S.N., et al. 176, 59

Sanko, N.F., see Emerich, C., et al. 187, 839 Sanko, N., see Moroz, V.I., et al. 187, 513

Santagata, N., Basso, L., Gottardi, M., Palumbo, G.G.C., Vettolani, G.: Accurate positions of Zwicky galaxies. II 183, 185 (70, 189)

Santagata, N., Basso, L., Gottardi, M., Palumbo, G.G.C., Vettolani, G., Vigotti, M.: Accurate positions of Zwicky galaxies. III 183, 186 (70, 191)

Santamaria, J., see Navarro, R., et al. 174, 344

Sanz Fernandez de Corboda, L., see Panagia, N., et al. 177, L25

Sanz, J.L., see Goicoechea, L.J. 177, 1

Saraceno, P., see D'Amico, N., et al. 180, 114

Sarasso, M., see Chiumiento, G. 180, 279 (69, 415)

Sarasso, M., see Chiumiento, G., et al. 183, 403 Sarcander, M., see Neckel, T., et al. 175, 231

Sareyan, J.P., see Chapellier, E., et al. 176, 255

Saslaw, W.C., see Crane, P., et al. 183, 16

Sastri, J.H., see Boischot, A., et al. 175, 287

Sato, S., see Yamashita, T., et al. 177, 258

Sauer, K., see Baumgärtel, K. 187, 307

Saurer, W., Weinberger, R.: Erratum: The $-33^{\circ} \le \delta \le -17^{\circ}$

zone: probing SRC J film copies for planetary nebulae 185, 358 (70, 531)

Saurer, W., Weinberger, R.: The $-33^{\circ} \le \delta \le 17^{\circ}$ zone: probing SRC *J* film copies for planetary nebulae **180**, 282 (69, 527)

Sauvageot, J.L., see Cristiani, S., et al. 177, L5

Sauvaud, J.A., see Anderson, K.A., et al. 187, 290

Sauvaud, J.A., see d'Uston, C., et al. 187, 137

Sauvaud, J.A., see Korth, A., et al. 187, 149 Sauvaud, J.A., see Rème, H., et al. 187, 33

Savin, S., Avanesova, G., Balikhin, M., Wozniak, D., Wronowski, P., Klimov, S., Krawczyk, Z., Nozdrachev, M., Orlowski, D., Sokolov, A., Juchniewicz, J.: Comparative study of the low-frequency waves near comet P/Halley during the Vega-1 and Vega-2 flybys 187, 89

Savvin, A.V., see Mazets, E.P., et al. 187, 699

Sawyer, C., Warwick, J.W.: Wide visibility of kilometric type III bursts 177, 277

Scaltriti, F., see Busso, M., et al. 183, 83

Scardia, M., see Barbieri, C., et al. 175, 360 (67, 507)

Scardia, M., see Barbieri, C., et al. 187, 893

Scarf, F.L., Coroniti, F.V., Kennel, C.F., Gurnett, D.A., Ip, W.-H., Smith, E.J.: Observations of cometary plasma-wave phenomena 187, 109

Scarf, F.L., see Tsurutani, B.T., et al. 187, 97

Schaaf, R., Pietsch, W., Biermann, P.: EXOSAT observations of the magnetic binary system E1114+182 174, 357

Schaefer, B.E., Pedersen, H., Gouiffes, C., Poulsen, J.M., Pizzichini, G.: Optical flash background rates 174, 338

Schaefer, J.: Theoretical studies of the faint features in the $S_0(0)$ line of H_2 observed in the Voyager IRIS mission (0) line of H_2 observed in the Voyager IRIS mission 182, L40

Schaeffer, R.: Biased galaxies and non-linear correlations 180,

Schaeffer, R.: Scaling laws for the probability of holes in the galaxy distribution 181, L23

Schaeffer, R., Cassé, M., Mochkovitch, R., Cahen, S.: The light curve of SN 1987 A 184, L1

Schaeffer, R., see Zdunik, J.L., et al. 172, 95

Schalinski, C., see Eckart, A., et al. 173, 217 (67, 121)

Schatzman, E.: Stellar evolution with turbulent diffusion mixing.

VII. Application to the determination of primordial ³He abundance 172, 1

Schild, H.: The stellar association LH 39 in the Large Magellanic cloud and its Wolf-Rayet star 173, 405

Schild, R., see Maccagni, D., et al. 178, 21

Schindler, R., see Isserstedt, J. 175, 23

Schleicher, D.G., Millis, R.L., Birch, P.V.: Photometric observations of comet P/Giacobini-Zinner 187, 531

Schleicher, D.G., see Feldman, P.D., et al. 187, 325

Schlickeiser, R., Sievers, A., Thiemann, H.: The diffuse radio emission from the Coma cluster 182, 21

Schlickeiser, R., see Dröge, W., et al. 178, 252

Schlickeiser, R., see Lesch, H. 179, 93

Schloerb, F.P., Claussen, M.J., Tacconi-Garman, L.: OH radio observations of comet P/Halley 187, 469

Schloerb, F.P., Kinzel, W.M., Swade, D.A., Irvine, W.M.: Observations of HCN in comet P/Halley 187, 475

Schmadel, L.D., see Scholl, H., et al. (10) 179, 311

Schmeidler, F.: Micrometric measurements of triple systems north of +70° declination (Text in German) 173, 419 (67, 303)

Schmidt, H.U., see Hillebrandt, W., et al. 177, L41 Schmidt, H.U., see Hillebrandt, W., et al. 180, L20 Schmidt, H.U., see Hillebrandt, W., et al. 186, L9 Schmidt, H.U., see Keller, H.U., et al. 187, 807

Schmidt, H.U., see Wegmann, R., et al. 187, 339

Schmidt, J., see Chini, R., et al. 181, 237

Schmidt, K., see Keller, H.U., et al. 187, 807

Schmidt, R.E., see Sekanina, Z., et al. 187, 645

Schmidt, W.K.H., see Keller, H.U., et al. 187, 807 Schmidt-Kaler, T., see Celnik, W.E. 187, 233

Schmidt-Voigt, M., Köppen, J.: Influence of stellar evolution on the evolution of planetary nebulae. I. Numerical method and hydrodynamical structures 174, 211

Schmidt-Voigt, M., Köppen, J.: Influence of stellar evolution on the evolution of planetary nebulae. II. Confrontation of models with observations 174, 223

Schmieder, B., see Démoulin, P., et al. 183, 142

Schmieder, B., see Malherbe, J.M., et al. 172, 316

Schmitt, D.: An αω-dynamo with an α-effect due to magnetostrophic waves 174, 281

Schmitt, J.H.M.M., Pallavicini, R., Monsignori-Fossi, B.C., Harnden FR, Jr.: A comparison of coronal X-ray emission observed with the Einstein and EXOSAT observatories 179, 193

Schmitz, F.: The effect of a poloidal magnetic field on the stability of a rotating self-gravitating disc 179, 167

Schmitz, F., Ebert, R.: The stability of differentially rotating self-gravitating gas clouds. II: Polytropic configurations 181, 41

Schmutz, W., see Hamann, W.-R. 174, 173

Schnedler Nielsen, H., see Knude, J., et al. 179, 115

Schneider, H.: Strömgren and H β photometry of early-type stars in northern open clusters. I. NGC 7039, NGC 7063 175, 361 (67, 545)

Schneider, H.: Strömgren photometry of open clusters. II. NGC3532 186, 365 (71, 147)

Schneider, H.: Strömgren photometry of open clusters. III. NGC2323, NGC5662 188, 272 (71, 531)

Schneider, H., see Kroll, R., et al. 173, 416 (67, 195)

Schneider, H., see Maitzen, H.M. 188, 270 (71, 431)

Schneider, J., see Blanchard, A. 184, 1

Schneider, P.: Apparent number density enhancement of quasars near foreground galaxies due to gravitational lensing. I. Amplification cross sections 179, 71

Schneider, P.: Apparent number density enhancement of quasars near foreground galaxies due to gravitational lensing. II. The amplification probability distribution and results 179, 80

Schneider, P.: Statistical gravitational lensing: influence of compact objects on the number counts of quasars 183, 189

Schneider, P., Weiss, A.: A gravitational lens origin for AGNvariability? Consequences of micro-lensing 171, 49

Schnopper, H.W., see Singh, K.P., et al. 172, L11

Schnur, G., see Laureijs, R.J., et al. 184, 269

Schober, H.J.: Rotation and variability of the large C-type asteroid 375 Ursula 183, 151

Schoembs, R., Dreier, H., Barwig, H.: Simultaneous multicolour photometry of OY Carinae during quiescence 181, 50

Schoembs, R., see Barwig, H., et al. 175, 327

Schoembs, R., see Cristiani, S., et al. 177, L5

Scholl, H., Schmadel, L.D., Röser, S. (10) Hygiea derived from observations of (829) Academia 179, 311

Scholl, H., see Froeschlé, Ch. 179, 294

Scholz, M., Takeda, Y.: Model study of wavelength-dependent limb-darkening and radii of M-type giants and supergiants 186, 200 Schönknecht, G., see Bues, I., et al. 186, 99

Schraml, J., see Bockelée-Morvan, D., et al. 180, 253

Schramm, T., Kayser, R.: A simple imaging procedure for gravitational lenses 174, 361

Schreiber, R., Hanasz, J.: Source sizes of type III bursts at hectometric wavelengths as determined from ionospheric cutoffs 188, 178

Schrijver, C.J.: Magnetic structure in cool stars. XI. Relations between radiative fluxes measuring stellar activity, and evidence for two components in stellar chromospheres 172, 111

Schrijver, C.J.: Solar active regions: radiative intensities and large-scale parameters of the magnetic field 180, 241

Schrijver, C.J., Rutten, R.G.M.: Magnetic structure in cool stars. XIV. Deficiency in chromospheric fluxes from M-type dwarfs 177, 143

Schrijver, C.J., see Rutten, R.G.M. 177, 155

Schubart, J., Bien, R.: Trojan asteroids: relations between dynamical parameters 175, 299

Schubart, J., see Bien, R. 175, 292

Schulte, W., see Eberhardt, P., et al. 187, 435

Schulte, W., see Eberhardt, P., et al. 187, 481

Schulte, W., see Lämmerzahl, P., et al. 187, 169

Schulte-Ladbeck, R.E., Magalhães, A.M.: Polarization and infrared colors of symbiotic stars 181, 213

Schulte-Ladbeck, R.E., see Hopp, U. 188, 5

Schulz, A., Krügel, E.: CO (J=4-3) submillimeter map of M17SW 171, 297

Schulz, A., see Krügel, E., et al. 185, 283

Schulz, H.: The core of the narrow line region of NGC 4151 178. 7

Schüssler, M., see Grossmann-Doerth, U., et al. 176, 139

Schuster, H.-E., see West, R.M., et al. 177, L1

Schwarz, G., Craubner, H., Delamere, A., Göbel, M., Gonano, M., Huebner, W.F., Keller, H.U., Kramm, R., Mikusch, E., Reitsema, H., Whipple, F.L., Wilhelm, K.: Detailed analysis of a surface feature on comet P/Halley 187, 847

Schwarz, H.E., Mundt, R.: Polarimetry of SN 1987 A 177, L4 Schwarz, H., see Cristiani, S., et al. 177, L5

Schwehm, G.H., see McDonnell, J.A.M., et al. 187, 719

Schwenn, R., Ip, W.-H., Rosenbauer, H., Balsiger, H., Bühler, F., Goldstein, R., Meier, A., Shelley, E.G.: Ion temperature and flow profiles in comet P/Halley's close environment 187, 160

Schwenn, R., see Allen, M., et al. **187**, 502 Schwenn, R., see Balsiger, H., et al. **187**, 163

Schwenn, R., see Goldstein, B.E., et al. 187, 174

Schwenn, R., see Goldstein, R., et al. 187, 220

Schwenn, R., see Ip, W.-H., et al. 187, 132

Schwenn, R., see Neugebauer, M., et al. 187, 21

Schwering, P.B.W., see Walterbos, R.A.M. 180, 27

Schwingenschuh, K., see Gribov, B.E., et al. 187, 293

Schwingenschuh, K., see Niedner MB, Jr. 187, 103

Schwingenschuh, K., see Yeroshenko, Y.G., et al. 187, 69

Scivetti, A., see Rainey, R., et al. 171, 252

Scuflaire, R., see Vreux, J.M., et al. 180, L17

Seaquist, E.R., see Taylor, A.R., et al. 183, 38

Sedlmayr, E., see Gail, H.P. 171, 197

Sedlmayr, E., see Gail, H.-P. 177, 186

Sedmak, G., see Doazan, V., et al. 173, L8

Sedmak, G., see Doazan, V., et al. 182, L25

Sedmak, G., see Pansecchi, L., et al. 176, 358

Seifert, W., Östreicher, R., Wunner, G., Ruder, H.: The magnetic field strength in the emission line region of the AM Her system EF Eridani (=2A0311-277) 183, L1

Seifert, W., see Östreicher, R., et al. 173, L15

Seifert, W., see Wolf, B., et al. 186, 182

Seige, P., see Keller, H.U., et al. 187, 807

Sekanina, Z.: Dust environment of comet P/Halley: a review 187, 789

Sekanina, Z., Larson, S.M., Emerson, G., Helin, E.F., Schmidt, R.E.: The sunward spike of Halley's comet 187, 645

Sekanina, Z., see Larson, S., et al. 187, 639

Sekanina, Z., see McDonnell, J.A.M., et al. 187, 719

Selvelli, P.L., see Marsi, C. 186, 365 (71, 153)

Semel, M.: Polarimetry and imagery through uniaxial crystals. Application to solar observations with high spatial resolution 178, 257

Semenzato, R.: The influence of massive molecular clouds in the evolution of the velocity dispersion of stars in the galactic disk 175, 50

Sen, A.K., see Joshi, U.C., et al. 181, 31

Senay, M., see Larson, S., et al. 187, 639

Serabyn, E., Güsten, R.: A molecular counterpart to the galactic center arc 184, 133

Serabyn, E., see Menten, K.M., et al. 177, L57

Sergysels, R., Loks, A.: Restrictions on the motion in the general four-body problem 182, 163

Severino, G., see Gomez, M.T., et al. 188, 169

Sèvre, F., see Augarde, R., et al. 185, 4

Sezer, C., see Güdür, N., et al. 173, 216 (67, 87)

Shafer, R.A., see van Paradijs, J., et al. 182, 47

Shakhovskoy, N.M., see Huovelin, J., et al. 176, 83

Shakura, N.İ., Postnov, K.A.: Doppler-effect modulation of the observed radiation flux from ultracompact binary stars 183, 1.21

Shamis, V.A., see Sagdeev, R.Z., et al. 187, 835

Shapiro, V.D., see Gribov, B.E., et al. 187, 293

Shapiro, V.D., see Mazets, E.P., et al. 187, 699

Shapiro, V.D., see Sagdeev, R.Z., et al. 187, 179 Shapiro, V., see Mogilevsky, M., et al. 187, 80

Sharma, S.K., Somerford, D.J.: A note on the scattering of light from interplanetary dust particles 174, 352

Shcheglov, P.V., Shestakova, L.I., Ajmanov, A.K.: Results of interferometric observations of the F-corona radial velocity field between 3 and 7 solar radii 173, 383

Shelley, E.G., Fuselier, S.A., Balsiger, H., Drake, J.F., Geiss, J., Goldstein, B.E., Goldstein, R., Ip, W.-H., Lazarus, A.J., Neugebauer, M.: Charge exchange of solar wind ions in the coma of comet P/Halley 187, 304

Shelley, E.G., see Balsiger, H., et al. 187, 163

Shelley, E.G., see Goldstein, B.E., et al. 187, 174

Shelley, E.G., see Goldstein, R., et al. 187, 220

Shelley, E.G., see Ip, W.-H., et al. 187, 132

Shelley, E.G., see Neugebauer, M., et al. 187, 21

Shelley, E.G., see Schwenn, R., et al. 187, 160

Shelley, E., see Allen, M., et al. 187, 502

Shestakova, L.I.: Interpretation of F-corona radial velocity observations 175, 289

Shestakova, L.I., see Shcheglov, P.V., et al. 173, 383

Shevchenko, V.I., see Gribov, B.E., et al. 187, 293

Shevchenko, V.I., see Mazets, E.P., et al. 187, 699

Shevchenko, V., see Mogilevsky, M., et al. 187, 80

Shevgaonkar, R.K.: Maximum entropy method for polarized images 176, 159

Shevgaonkar, R.K., see Kundu, M.R., et al. 176, 131

Shivanandan, K., see Persi, P., et al. 185, 356 (70, 437)

Shore, S.N., Brown, D.N.: IUE observations of the broad con-

tinaum feature at 1400 Å in the silicon and related stars 184,

Shore, S.N., Brown, D.N., Sonneborn, G., Gibson, D.M.: The rapidly oscillating Ap stars as a test of stellar chromospheric heating mechanisms 182, 285

Shore, S.N., Sanduleak, N., Allen, D.A.: The peculiar early-type emission line supergiant S 18/SMC: an optical and ultraviolet study 176, 59

Shostak, G.S.: The distribution of H1 in the lenticular galaxy NGC 2787 175, 4

Shukurov, A., see Baryshnikova, Y., et al. 177, 27

Shutyaev, I.Y., see Sagdeev, R.Z., et al. 187, 179

Shylaja, B.S., see Sivaraman, K.R., et al. 187, 543

Sibille, F., see Monin, J.L., et al. 172, 368

Sieber, W., Wielebinski, R.: Pulsar characteristics at 24 GHz

Sievers, A., see Schlickeiser, R., et al. 182, 21

Sillanpää, A., see Valtaoja, L., et al. 184, 57

Silvestro, G., see Busso, M., et al. 183, 83

Simien, F., see Prugniel, P., et al. 173, 49

Simon, J.-L.: Computation of the first and second derivatives of the Lagrange equations by harmonic analysis (Text in French) 175, 303

Simon, N.R., see Aikawa, T., et al. 181, 25

Simon, P.A., Legrand, J.P.: Some solar cycle phenomena related to the geomagnetic activity from 1868 to 1980. III. Quiet-days, fluctuating activity of the solar equatorial belt as the main origin of the solar wind flowing in the ecliptic plane 182,

Simon, R., see Eckart, A., et al. 173, 217 (67, 121)

Simon, T., see Butler, C.J., et al. 174, 139

Simon, T., see Rodonò, M., et al. 176, 267

Simonneau, E., see López, R., et al. 184, 249

Simpson, J.A., Rabinowitz, D., Tuzzolino, A.J., Ksanfomality, L.V., Sagdeev, R.Z.: The dust coma of comet P/Halley: measurements on the Vega-1 and Vega-2 spacecraft 187, 742

Sinclair, A.T., see Taylor, D.B., et al. 181, 383

Singal, A.K.: Ooty lunar occultation survey of radio sources 178, 324 (69, 91)

Singh, K.P., Westergaard, N.J., Schnopper, H.W.: EXOSAT observations of a broad absorption-line quasar: PHL 5200

Singh, P.D., Gruenwald, R.B.: The photodissociation lifetimes of the NH radical in comets 178, 277

Sistero, R.F., see Cerruti, M.A., et al. 177, 350 (68, 351)

Sitarski, G., Ziolkowski, K.: A new approach to investigations of the long-term motion of comet P/Halley 187, 896

Sitarski, G., see Rickman, H., et al. 188, 206

Sivagnanam, P., see Braz, M.A. 181, 19

Sivan, J.-P., see Courtès, G., et al. 174, 28

Sivaraman, K.R., Babu, G.S.D., Shylaja, B.S., Rajamohan, R.: Spectrophotometry of comet P/Halley. I. Flux, column density and emission gradients within the coma in the emission bands and the continuum 187, 543

Skillen, I., see Haefner, R., et al. 179, 141

Skillman, E.D., Bothun, G.D., Murray, M.A., Warmels, R.H.: Neutral hydrogen observations of four dwarf irregular galaxies in the Virgo Cluster 185, 61

Skillman, E.D., see van der Hulst, J.M., et al. 177, 63

Skuppin, R., Bianchi, L., de Boer, K.S., Grewing, M.: Interstellar absorption lines in the spectra of θ -Crateris and 14 Canum Venaticorum 177, 228

Slavin, J.A., see Brosius, J.W., et al. 187, 267

Smale, A.P., see van Paradijs, J., et al. 184, 201

Smartt, R., see Brandt, P.N., et al. 188, 163

Smeyers, P., see Bruggen, P. 186, 170

Smirnov, V.N., Vaisberg, O.L., Anisimov, S.: An attempt to evaluate the structure of cometary dust particles 187, 774

Smirnov, V., see Vaisberg, O.L., et al. 187, 183 Smirnov, V., see Vaisberg, O.L., et al. 187, 753

Smith, A., see Vacca, W.D., et al. 172, 143

Smith, B., see Sagdeev, R.Z., et al. 187, 835

Smith, E.J., see Brosius, J.W., et al. 187, 267

Smith, E.J., see Sanderson, T.R., et al. . 187, 125

Smith, E.J., see Scarf, F.L., et al. 187, 109

Smith, E.J., see Tsurutani, B.T., et al. 187, 97

Smith, E., see Saito, T., et al. 187, 209

Smith, G., Drake, J.J.: The wings of the calcium infrared triplet lines in solar-type stars 181, 103

Smith, H., Jr.: The calibration problem, I. Estimation of mean absolute magnitude using trigonometric parallaxes 171, 336

Smith, H., Jr.: The calibration problem. II. Trigonometric parallaxes selected according to proper motion and the problem of statistical parallaxes 171, 342

Smith, H., Jr.: The calibration problem. III. First-order solution for mean absolute magnitude and dispersion 181, 391

Smith, H., Jr.: The calibration problem. IV. The Lutz-Kelker correction 188, 233

Smith, R.G., see Tokunaga, A.T., et al. 187, 519

Sneden, C., see Gratton, R.G. 176, 193 (68, 193)

Sneden, C., see Gratton, R.G. 178, 179

Snyder, L.E., see Henkel, C., et al. 182, 299

Snyder, W.A., see Biermann, P.L., et al. 185, 9

Sofue, Y., see Fürst, E., et al. 180, 279 (69, 403)

Sofue, Y., see Fürst, E., et al. 186, 362 (71, 63)

Sokoloff IV, D.D., see Baryshnikova, Y., et al. 177, 27

Sokolov, A., see Savin, S., et al. 187, 89

Sokolov, I.A., see Mazets, E.P., et al. 187, 699

Sol, H., see Cayatte, V. 171, 25

Solanki, S.K., Keller, C., Stenflo, J.O.: Properties of solar magnetic fluxtubes from only two spectral lines 188, 183

Solanki, S.K., see Stenflo, J.O., et al. 171, 305

Solanki, S.K., see Stenflo, J.O., et al. 173, 167

Šolc, M., Vanýsek, V., Kissel, J.: Carbon-isotope ratio in PUMA 1 spectra of P/Halley dust 187, 385

Solf, J.: Optical confirmation and high-resolution spectroscopy of the radio jet from the symbiotic star CH Cygni 180, 207

Solf, J.: The kinematic structure of the HH 24 complex derived from high-resolution spectroscopy 184, 322

Somerford, D.J., see Sharma, S.K. 174, 352

Somogyi, A.J., see Curtis, C.C., et al. 187, 360

Somogyi, A.J., see Gribov, B.E., et al. 187, 293

Somogyi, A.J., see Hsieh, K.C., et al. 187, 375

Somov, B.V., see Hénoux, J.C. 185, 306

Song, D.J., see Ruffini, R. 179, 3

Sonneborn, G., see Shore, S.N., et al. 182, 285

Soru-Escaut, I., see Mouradian, Z., et al. 183, 129

Soucail, G., Fort, B., Mellier, Y., Picat, J.P.: A blue ring-like structure in the center of the A 370 cluster of galaxies 172,

Soucail, G., Mellier, Y., Fort, B., Hammer, F., Mathez, G.: Further data on the blue ring-like structure in A 370 184, L7

Soucail, G., Mellier, Y., Fort, B., Picat, J.P., Cailloux, M.: Data reduction and spectrophotometric performances of PUMA 1: an on-line multiaperture spectroscopic system used at the CFHT 184, 361

Spaan, F.H.P., de Jager, C., Nieuwenhuijzen, H., Kondo, Y.: Microturbulence in the upper photosphere of a Persei (F5 lb) derived from ultraviolet spectral observations 185, 229

Spasov, S., see Moreels, G., et al. 187, 551

Spencer, J.H., see de Vegt, C., et al. 179, 322

Spencer, J.H., see Diamond, P.J., et al. 174, 95

Spicer, D.S., see Zuccarello, F., et al. 180, 218

Spicker, J., see Feitzinger, J.V. 184, 122

Spinella, F., see Andronico, G., et al. 184, 333

Spinoglio, L., see Persi, P., et al. 185, 356 (70, 437)

Spinrad, H., see Belton, M.J.S., et al. 187, 569

Spite, F., Spite, M., Peterson, R.C., Chaffee FH, Jr.: Measurement of lithium abundance in dwarf stars of M 67 171, L8

Spite, F., see Barbuy, B., et al. 178, 199

Spite, F., see Spite, M., et al. 172, L9

Spite, F., see Spite, M., et al. 188, 274 (71, 591)

Spite, M., Huille, S., François, P., Spite, F.: High resolution observations of stars in the peculiar globular cluster ω Cen 188, 274 (71, 591)

Spite, M., Spite, F., Peterson, R.C., Chaffee FH, Jr.: Lithium abundance in two extreme high-velocity metal-poor halo dwarfs 172, L9

Spite, M., see Barbuy, B., et al. 178, 199

Spite, M., see Spite, F., et al. 171, L8

Spizzichino, A., see Stephen, J.B., et al. 185, 343

Spruit, H.C.: Stationary shocks in accretion disks 184, 173

Spyrou, N.: Self-energy losses in the binary pulsar PSR 1913+ 16 174, 355

Sreekantan, B.V., see Bhat, P.N., et al. 178, 242

Sreekantan, B.V., see Damle, S.V., et al. 182, L1

Sreekantan, B.V., see Damle, S.V., et al. 186, L20

Stacey, G.J., Lugten, J.B., Genzel, R.: Detection of OH rotational emission from comet P/Halley in the far-infrared 187, 451

Stahl, O.: Direct imagery of circumstellar shells around Ofpe/ WN9 stars in the galaxy and in the LMC 182, 229

Stahl, O., Leitherer, C.: The peculiar Be star HD89249: a spectrum composite with a K star 177, 105

Stahl, O., Wolf, B.: The peculiar emission-line supergiant HD 37836 181, 293

Stahl, O., Wolf, B., Zickgraf, F.-J.: Photometry and spectroscopy of the eclipsing P Cygni star R 81 in the Large Magellanic Cloud 184, 193

Stahl, O., see Leitherer, C., et al. 185, 121

Stahl, O., see Wolf, B., et al. 186, 182

Stähli, M., Benz, A.O.: Microwave emission of solar electron beams 175, 271

Staiger, J.: Observations of oscillatory phase-shifts with diode arrays 175, 263

Staines, K., see Richardson, I.G., et al. 187, 276

Stanga, R., see Bouchet, P., et al. 177, L9

Stanga, R., see Felli, M. 175, 193

Stanga, R., see Lorenzetti, D., et al. 187, 609

Stark, A.A., see Casoli, F., et al. 173, 43

Stark, D., see Balthasar, H., et al. 174, 359 .

Stasińska, G., see Vigroux, L., et al. 172, 15

Staubert, R., see Courvoisier, T.J.-L., et al. 176, 197

Staude, H.J., see Neckel, T., et al. 175, 231

Steeman, F.W.M., see Oort, M.J.A., et al. 179, 41

Steeman, F., see Cristiani, S., et al. 177, L5

Steemers, W.J.G., see van Genderen, A.M., et al. 185, 131

Steinberg, J.L., see Dulk, G.A., et al. 173, 366

Stella, L., Treves, A.: The disruption of a light neutron star

in an ultra-close binary and the second neutrino burst from SN 1987 A 185, L5

Stella, L., see Barr, P., et al. 176, 69

Stelzried, C.T., see Edenhofer, P., et al. 187, 712

Stenflo, J.O., Solanki, S.K., Harvey, J.W.: Center-to-limb variation of Stokes profiles and the diagnostics of solar magnetic fluxtubes 171, 305

Stenflo, J.O., Solanki, S.K., Harvey, J.W.: Diagnostics of solar . magnetic fluxtubes with the infrared line Fe1 à 15648.54 Å

Stenflo, J.O., see Mathys, G. 171, 368

Stenflo, J.O., see Mathys, G. 175, 361 (67, 557)

Stenflo, J.O., see Mathys, G. 185, 358 (70, 142)

Stenflo, J.O., see Solanki, S.K., et al. 188, 183

Stenholm, B., Acker, A.: Spectroscopic observations of faint and misclassified planetary nebulae 176, 189 (68, 51)

Stenholm, B., see Acker, A., et al. 186, 365 (71, 163)

Stephen, J.B., Caroli, E., Di Cocco, G., Maggioli, P.P., Natalucci, L., Spizzichino, A.: The identification of vignetted sources in coded aperture imaging 185, 343

Stephens, S.A., see Golden, R.L., et al. 188, 145

Stepień, K., Muthsam, H.: Line-blanketed model atmospheres of Ap-stars. VI. HD 221568 185, 225

Steppe, H., see Henkel, C., et al. 188, L1

Sterken, C., Manfroid, J., Arpigny, C.: Photometry of P/Halley (1982i) 187, 523

Sterken, C., Young, A., Furenlid, I.: The light curve of BW Vulpeculae 177, 150

Sterken, C., see Manfroid, J. 188, 272 (71, 539)

Sterken, C., see van der Linden, D. 178, 325 (69, 157)

Sterken, C., see van der Linden, D. 186, 129

Stevens, G., see Hick, P. 172, 350

Stevens, M.A., see Sandell, G., et al. 179, 255

Stevenson TJ, see McDonnell, J.A.M., et al. 187, 719

Stewart, A.I.F.: Pioneer Venus measurements of H, O, and C production in comet P/Halley near perihelion 187, 369

Stewart, P., see Huang, S.-N. 174, 13

Stickland, D.J., Pike, C.D., Lloyd, C., Howarth, I.D.: A study of the massive O-type binary Iota Orionis 184, 185 Stix, M., see Belvedere, G., et al. 177, 183

Stockton, A., see Crane, P., et al. 183, 16

Stohl, J.: Meteor contribution by short-period comets 187. 933

T

T

T

T

T

T

T

T

T

Stollman, G.M.: Pulsar statistics 178, 143

Stollman, G.M.: The radio luminosity of pulsars 171, 152

Storey, J.M.V., see Sandell, G., et al. 182, 237

Storey, P.J., see Nussbaumer, H. 178, 324 (69, 123)

Storrs, A.D., see Hammel, H.B., et al. 187, 665

Strafella, F., see D'Amico, N., et al. 180, 114

Strafella, F., see Lorenzetti, D., et al. 187, 609

Stratton, B.C., see Finkenthal, M., et al. 184, 337

Straumann, N., see Paganini, R., et al. 177, 84

Strazzulla, G., see Andronico, G., et al. 184, 333

Strazzulla, G., see Johnson, R.E., et al. 187, 889

Stringari, S., see Vinas, X., et al. 182, L34

Strobel, A., see Krelowski, J. 175, 186

Strong, A.W., Bloemen, J.B.G.M., Lebrun, F., Hermsen, W., Mayer-Hasselwander, H.A., Buccheri, R.: The final COS-B database: in-flight calibration of sensitivity and instrumental background behaviour 173, 418 (67, 283)

Strong, A.W., see Hermsen, W., et al. 175, 141

Strupat, W.: Light-curve analysis of the W Serpentis objects W Crucis and RX Cassiopeiae 185, 150

Strupat, W., see Leitherer, C., et al. 185, 121

Stryczyński, J.: Ultraviolet properties of normal galaxies 182, 362 (70, 115)

Stubbemann, U., see Eberhardt, P., et al. 187, 481

Stubbemann, U., see Lämmerzahl, P., et al. 187, 169

Stüdemann, W., see Thomsen, M.F., et al. 187, 141

Stüdemann, W., see Wilken, B., et al. 187, 153

Styashkin, V.A., see Yeroshenko, Y.G., et al. 187, 69

Suchail, J.-L., see Dollfus, A. 187, 669

Sukumar, S., Klein, U., Gräve, R.: Multi-frequency radio continuum observations of NGC 5236 (M83) 184, 71

Sumner, T.J., Clements, D.L., Williams, O.R., Rochester, G.K.: COS-B upper limit to the >70 MeV gamma-ray flux from a gamma-ray burst event of 1979 November 9 188, 273 (71, 557)

Sumner, T.J., see Lieu, R., et al. 176, L21

Sun, J., Kwok, S.: Kinematic structure of OH/IR stars 185, 258

Sun, J., see Zeng, Q., et al. 172, 299

Sun, S.S., see Gong, et al. 187, 594

Sundelius, B., Thomasson, M., Valtonen, M.J., Byrd, G.G.: Tidal spiral arms in two-component galaxies. Density waves and swing amplification 174, 67

Sundelius, B., see Byrd, G.G., et al. 171, 16

Suraud, E., see Lassaut, M., et al. 183, L3

Surdej, J., Hutsemékers, D.: Geometry of the mass-outflows around broad absorption line QSOs and formation of the complex Lyα+Nv line profile 177, 42

Surdej, J., see Hutsemékers, D. 173, 101

Suzuki, H., see Yamashita, T., et al. 177, 258

Swade, D.A., see Schloerb, F.P., et al. 187, 475

Swaminathan, S., see Bhat, P.N., et al. 171, 84

Swings, J.-P., see Brandi, E., et al. 175, 151

Szabelski, J., see Mayer, C.J., et al. 180, 73

Szczerba, R.: Distribution of I(He II λ 4686)/I(Hβ) in planetary nebulae and masses of their nuclei 181, 365

Szegő, K., see Gribov, B.E., et al. 187, 293

Szegő, K., see Gringauz, K.I., et al. 187, 191

Szegő, K., see Gringauz, K.I., et al. 187, 287

Szegő, K., see Sagdeev, R.Z., et al. 187, 835

Szegő, K., see Verigin, M.I., et al. 187, 121

Szemerey, I., see Verigin, M.I., et al. 187, 121

Szemerey, T., see Gringauz, K.I., et al. 187, 287

Sztajno, M., see Vacca, W.D., et al. 172, 143

Tacconi-Garman, L., see Schloerb, F.P., et al. 187, 469

Tagliaferri, G., see Beuermann, K., et al. 175, L9

Takahashi, S., Terasawa, T., Mukai, T., Kitayama, M., Miyake, W., Hirao, K.: Plasma flow in the cometosheath of P/Halley during the encounter of Suisei 187, 94

Takeda, Y., see Scholz, M. 186, 200

Talavera, A., Gomez de Castro, A.I.: The UV high resolution spectrum of A-type supergiants 181, 300

Talavera, A., Balkowski, C., Fontanelli, P.: Velocity measurements in the Coma filament of galaxies 178, 328 (69, 331)

Talavera, A., see Cassatella, A., et al. 177, L29

Talavera, A., see Freire Ferrero, R., et al. 173, 315

Talavera, A., see Proust, D., et al. 173, 215 (67, 57)

Talavera, A., see Wamsteker, W., et al. 177, L21

Talbi, D., Pauzat, F.: A theoretical study of the H₃⁺ +CO protonation process. I. The formation of HCO⁺ 181, 394

Tamburrano, M., see Fabbri, R. 179, 11

Tammann, G.A., see Richter, O.-G., et al. 171, 33

Tamura, S., see Taniguchi, Y. 181, 265

Tanabe, H., see Toller, G., et al. 188, 24

Tanaka, K., see Antonucci, E., et al. 180, 263

Tandberg-Hanssen, E., see Malherbe, J.M., et al. 172, 316

Tang, G., Rönnäng, B., Baath, L.: Radio source structure from geodetic VLBI observations: 8 GHz multi-epoch maps of the quasar 4C 39.25 185, 87

Taniguchi, Y., Tamura, S.: High-dispersion spectroscopy of the clumpy irregular galaxies Markarian 297 and 325 181, 265

Tantulli, F., see Cavallini, F., et al. 184, 386

Tapia, S., see Larson, S., et al. 187, 639

Tarenghi, M., see Festou, M.C., et al. 174, 299

Tarenghi, M., see Maccagni, D., et al. 178, 21 Tarnapolski, V.I., see Sagdeev, R.Z., et al. 187, 835

Tarrab, I.: A morphological survey of emission line galaxies

188, 271 (71, 449)
Tatematsu, K., Fukui, Y., Nakano, M., Kogure, T., Ogawa, H., Kawabata, K.: Molecular clouds in the vicinity of the

semicircular supernova remnant G 109.1 – 1.0 184, 279 Tàtrallyay, M., see Gringauz, K.I., et al. 187, 287

Tátrallyay, M., see Gringauz, K.I., et al. 187, 191

Tátrallyay, M., see Verigin, M.I., et al. 187, 121

Taylor, A.R., Pottasch, S.R.: Detection of neutral hydrogen in the planetary nebula IC 418 176, L5

Taylor, A.R., Pottasch, S.R., Zhang, C.Y.: Radio continuum spectra of compact planetary nebulae: a wind-shell model 171, 178

Taylor, A.R., Seaquist, E.R., Hollis, J.M., Pottasch, S.R.: The unusual radio outburst of Nova Vulpeculae 1984 No.2 183, 38

Taylor, A.R., see Leahy, D.A. 176, 262

Taylor, D.B., Sinclair, A.T., Message, P.J.: Corrections to the theory of the orbit of Saturn's satellite Hyperion 181, 383

Taylor, K.N.R., see Sandell, G., et al. 182, 237

Teegarden, B., see Hudec, R., et al. 175, 71

Teerikorpi, P.: Cluster population incompleteness bias and distances from the Tully-Fisher relation: theory and numerical examples 173, 39

Teerikorpi, P., see Bottinelli, L., et al. 181, 1

Teerikorpi, P., see Salonen, E., et al. 185, 356 (70, 409)

Teleki, G., Grujić, R.: Catalogues of declinations and proper motions of 36 Belgrade zenith stars 177, 313

Telesco, C.M., see Campins, H., et al. 187, 601

Telesco, C.M., see Hammel, H.B., et al. 187, 665

Tenorio-Tagle, G., Palouš, J.: Giant-scale supernova remnants. The role of differential galactic rotation and the formation of molecular clouds 186, 287

Tenorio-Tagle, G., Bodenheimer, P., Różyczka, M.: Non-spherical supernova remnants. IV. Sequential explosions in OB associations 182, 120

Tenorio-Tagle, G., Franco, J., Bodenheimer, P., Różyczka, M.: Collisions of high-velocity clouds with the Milky Way: the formation and evolution of large-scale structures 179, 219

Tenorio-Tagle, G., see Różyczka, M. 176, 329

Terasawa, T., see Mukai, T., et al. 187, 129

Terasawa, T., see Takahashi, S., et al. 187, 94

Teräsranta, H., Valtaoja, E., Haarala, S., Elo, A.-M., Valtonen, M., Salonen, E., Urpo, S., Tiuri, M., Laurikainen, E.: 77 GHz continuum observations of variable extragalactic sources 186, 364 (71, 125)

Teräsranta, H., see Courvoisier, T.J.-L., et al. 176, 197

Teräsranta, H., see Salonen, E., et al. 185, 356 (70, 409)

Terzan, A., Turati, C., Ounnas, C.: A photometric study of the bright cloud B in Sagittarius. V. 185 new proper motion stars 173, 419 (67, 309)

Terzan, A., see Milano, L., et al. 183, 265

Testor, G., Lortet, M.-C.: High degree of fragmentation in the nebulae SMC:N 83 and N 84 and discovery of two O stars 178, 25

Testor, G., see Heydari-Malayeri, M., et al. 184, 300

Texier, P., see Chollet, F., et al. 173, 419 (67, 297)

Texier, P., see Chollet, F., et al. 186, 363 (71, 109)

Thaddeus, P., see Guélin, M., et al. 182, L37

Thaddeus, P., see Woodward, D.R., et al. 186, L14

Thé, P.S., see Byrne, P.B., et al. 186, 261

Thé, P.S., see Williams, P.M., et al. 182, 91

Thiemann, H., see Schlickeiser, R., et al. 182, 21

Thomas, H.C., see Beuermann, K., et al. 175, L9

Thomas, N., Keller, H.U.: Fine dust structures in the emission of comet P/Halley observed by the Halley Multicolour Camera on board Giotto 187, 843

Thomas, N., see Keller, H.U., et al. 187, 807

Thomas, R.N., see Doazan, V., et al. 173, L8

Thomas, R.N., see Doazan, V., et al. 182, L25

Thomasson, M., see Sundelius, B., et al. 174, 67

Thomsen, M.F., Feldman, W.C., Wilken, B., Jockers, K., Stüdemann, W., Johnstone, A.D., Coates, A., Formisano, V., Amata, E., Winningham, J.D., Borg, H., Bryant, D., Wallis, M.K.: In-situ observations of a bi-modal ion distribution in the outer coma of comet P/Halley 187, 141

Thomsen, M.F., see Coates, A.J., et al. 187, 55

Thomsen, M.F., see Johnstone, A.D., et al. 187, 25

Thomsen, M., see Johnstone, A., et al. 187, 47

Thomson, M.F., see Wilken, B., et al. 187, 153

Thorne, R.M., see Tsurutani, B.T., et al. 187, 97

Thuillot, W., see Fairhead, L., et al. 176, 190 (68, 81)

Thum, C., see Bockelée-Morvan, D., et al. 180, 253 Thum, C., see Krügel, E., et al. 185, 283

Tielens, A.G.G.M., see Bregman, J.D., et al. 187, 616

Tiersch, H., see Notni, P. 187, 796

Tiuri, M., see Salonen, E., et al. 185, 356' (70, 409)

Tiuri, M., see Teräsranta, H., et al. 186, 364 (71, 125)

Tkachuk, A.Y., see Krasnopolsky, V.A. 187, 431

Tkachuk, A.Y., see Krasnopolsky, V.A., et al. 187, 707

Tkachuk, A.Y., see Moreels, G., et al. 187, 551

Todorovic-Juchnievicz, B., see Rickman, H., et al. 188, 206

Tofani, G., see Falchi, A., et al. 187, 462

Toffolatti, L., Franceschini, A., De Zotti, G., Danese, L.: The local radio luminosity function of galaxies 184, 7

Tokunaga, A.T., Nagata, T., Smith, R.G.: Detection of a new emission band at 2.8 μm in comet P/Halley 187, 519

Tokunaga, A.T., see Hanner, M.S., et al. 187, 653

Toller, G., Tanabe, H., Weinberg, J.L.: Background starlight at the north and south celestial, ecliptic, and galactic poles 188, 24

Tomita, K., Saito, T., Minami, S.: Structure and dynamics of the plasma tail of comet P/Halley. II. Kink event on January 10-11, 1986 187, 215

Tomita, K., see Watanabe, J., et al. 187, 229

Tomkin, J., see Pettersen, B.R., et al. 183, 66

Tonwar, S.C., see Bhat, P.N., et al. 178, 242

Topaktas, L., see Fenkart, R. 178, 327 (69, 279)

Topaktas, L., see Fenkart, R., et al. 173, 417 (67, 245)

Tornambè, A., see Matteucci, F. 185, 51

Torra, J., see Rosselló, G., et al. 173, 217 (67, 157)

Torrelles, J.M., Anglada, G., Rodríguez, L.F., Cantò, J., Barral, J.F.: High angular resolution CO mapping of the high velocity gas associated with HL/XZ Tau and V 645 Cygni (GL 2789) 177. 171

Torrelles, J.M., see Rodriguez, L.F., et al. 186, 319

Torres, C., Wroblewski, H.: Precise optical positions of strong extragalactic radio sources south of $\delta = +5^{\circ}$ 178, 322 (69, 23)

Tóth, I., see Sagdeev, R.Z., et al. 187, 835

Toussaint, F., see Hagen, H.-J., et al. 183, L7

Tozzi, G.P., see Feldman, P.D., et al. 187, 325

Tran-Minh, N., see Hoang-Binh, D., et al. 181, 134 Traversa, G., see Fehrenbach, C., et al. 177, 352 (68, 515)

Traversa, G., see Florsch, A., et al. 187, 357

Traverse, G., see Fehrenbach, C., et al. 186, 366 (71, 185)

Treiner, J., see Vinas, X., et al. 182, L34

Treumann, R.A., see Ögelman, H., et al. 183, L27

Treves, A., see Stella, L. 185, L5

Treves, A., see van Paradijs, J., et al. 184, 201

Troland, T.H., see Crutcher, R.M., et al. 181, 119

Trotignon, J.G., Béghin, C., Grard, R., Pedersen, A., Formisano, V., Mogilevsky, M., Mikhailov, Y.: Dust observations of comet P/Halley by the plasma-wave analyser 187, 83

Trotignon, J.G., see Mogilevsky, M., et al. 187, 80

Trotignon, J.G., see Pedersen, A., et al. 187, 297

Truemper, J., see Vacca, W.D., et al. 172, 143

Trujillo-Bueno, J., Kneer, F.: Multidimensional radiative transfer in stratified atmospheres. IV. Radiative cooling by LTE and non-LTE spectral lines 174, 183

Trujillo-Bueno, J., see Kneer, F. 183, 91

Truong-Bach, Nguyen-Q-Rieu, Omont, A., Olofsson, H., Johansson, L.E.B.: The circumstellar shell of IRC + 10216: photo-chemistry of C₂H and CN 176, 285

Truong-Bach, see Nguyen-Q-Rieu, et al. 180, 117

Truran, J.W., see Hillebrandt, W., et al. 177, L41

Truran, J.W., see Hillebrandt, W., et al. 180, L20

Truran, J.W., see Hillebrandt, W., et al. 186, L9 Truran, J.W., see Wampler, E.J., et al. 182, L51

Tscharnuter, W.M.: A collapse model of the turbulent presolar nebula 188, 55

Tsiropoula, G., see Alissandrakis, C.E., et al. 174, 275

Tsurutani, B.T., Brinca, A.L., Smith, E.J., Thorne, R.M., Scarf, F.L., Gosling, J.T., Ipavich, F.M.: MHD waves detected by ICE at distances ≥ 28 10⁶ km from comet P/Halley: Cometary or solar wind origin? 187, 97

Tsurutani, B.T., see Brinca, A.L. 187, 311

Turati, C., see Terzan, A., et al. 173, 419 (67, 309)

Turatto, M., see Sabbadin, F., et al. 182, 305

Turner, B E.: Vibrationally excited CS in IRC+10216 182, L15

Turner, B.E.: Detection of vibrationally excited SiS in IRC+ 10216 183, L23

Turner, B.E., see Clark, F.O. 176, 114

Turner, M.J.L., see Courvoisier, T.J.-L., et al. 176. 197

Turner, R.F., see McDonnell, J.A.M. 187, 719

Tuzzolino, A.J., see Simpson, J.A., et al. 187, 742

Ukita, N., see Lindqvist, M., et al. 172, L3

Ulmschneider, P., Muchmore, D., Kalkofen, W.: Acoustic tube waves in the solar atmosphere. I. Magnesium and calcium line emission with complete redistribution 177, 292

Ulrich, M.-H., see Iye, M., et al. 186, 84

Umlauft, G., see Curtis, C.C., et al. 187, 360

Umlauft, G., see Hsieh, K.C., et al. 187, 375 Ungstrup, E., see Balsiger, H., et al. 187, 163 Ungstrup, E., see Neugebauer, M., et al. 187, 21 Urpo, S., see Salonen, E., et al. 185, 356 (70, 409) Urpo, S., see Teräsranta, H., et al. 186, 364 (71, 125)

Vacca, W.D., Sztajno, M., Lewin, W.H.G., Truemper, J., van-Paradijs, J., Smith, A.: A spectral study of the persistent Xray flux from 4U/MXB 1636-53 172, 143

Vahia, M.N.: Determination of temperature conditions of solar energetic particle emission regions 173, 361

Vahia, M.N., see Rao, A.R. 188, 109

Vaisberg, O.L., Smirnov, V., Omelchenko, A., Gorn, L., Iovlev, M.: Spatial and mass distribution of low-mass dust particles $(m < 10^{-10} \text{ g})$ in comet P/Halley's coma 187, 753

Vaisberg, O.L., Zastenker, G., Smirnov, V., Khazanov, B., Omelchenko, A., Fedorov, A., Zakharov, D.: Spatial distribution of heavy ions in comet P/Halley's coma 187, 183

Vaisberg, O.L., see Smirnov, V.N., et al. 187, 774

Valentijn, E.A., see Paturel, G., et al. 184, 86

Vallee, J.P.: The warm C_{II} region between the hot ionized region S64 = W40 and the cold molecular cloud G28.74 + 3.52178, 237

Vallée, J.P., see Higgs, L.A., et al. 181, 351

Vallée, O., see Hoang-Binh, D., et al. 181, 134

Valsecchi, G.B., see Carusi, A., et al. 187, 899

Valtaoja, E., see Salonen, E., et al. 185, 356 (70, 409)

Valtaoja, E., see Teräsranta, H., et al. 186, 364 (71, 125)

Valtaoja, E., see Valtaoja, L., et al. 184, 57

Valtaoja, L., Sillanpää, A., Valtaoja, E.: The correlation between radio and optical variations in OJ 287 184, 57

Valtaoja, L., see Salonen, E., et al. 185, 356 (70, 409)

Valtier, J.C., see Chapellier, E., et al. 176, 255

Valtonen, M.J., see Sundelius, B., et al. 174, 67

Valtonen, M., see Byrd, G.G., et al. 171, 16

Valtonen, M., see Courvoisier, T.J.-L., et al. 176, 197

Valtonen, M., see Salonen, E., et al. 185, 356 (70, 409)

Valtonen, M., see Teräsranta, H., et al. 186, 364 (71, 125)

van Albada-van Dien, E., Panjaitan, E.: Photographic observations of visual double stars (magnetic tape) 176, 191 (68, 117)

van Amerongen, S., Pedersen, H., van Paradijs, J.: CCD photometry of V 926 Sco, the optical counterpart of the X-ray burst source 4U/MXB 1735-44 185, 147

van Amerongen, S., see van Paradijs, J., et al. 184, 201

van Breda, I.G., see McKeith, C.D., et al. 173, 204

van de Hulst, H.C.: Radiative transfer in a spherical dust cloud. I. Exact results for isotropic scattering 173, 115

van de Weygaert, R., see Icke, V. 184, 16

van den Bergh, S., Younger, P.F.: UBV photometry of novae **182**, 362 (70, 125)

van den Heuvel, E.P.J., see de Kool, M., et al. 183, 47

van der Hucht, K.A., Cassinelli, J.P., Williams, P.M.: Erratum: Influence of abundances on mass-loss determination for WC stars 175, 356

van der Hucht, K.A., see van Genderen, A.M., et al. 185, 131 van der Hucht, K.A., see Williams, P.M., et al. 182, 91

van der Hulst, J.M., Skillman, E.D., Kennicutt, R.C., Bothun, G.D.: The neutral hydrogen content of red spiral galaxies 177, 63

van der Hulst, J.M., see Deul, E.R. 175, 360 (67, 509)

van der Hulst, J.M., see Hummel, E., et al. 172, 32

van der Hulst, J.M., see Hummel, E., et al. 185, 358 (70, 517)

van der Klis, M., see van der Woerd, H., et al. 182, 219

van der Klis, M., see van Paradijs, J., et al. 184, 201

van der Kruit, P.C.: The radial distribution of surface brightness in galactic disks 173, 59

van der Kruit, P.C., see Bottema, R., et al. 178, 77

van der Linden, D., Sterken, C.: The period of BW Vulpeculae

van der Linden, D., Sterken, C.: wby photometry of southern B- and A-stars 178, 325 (69, 157)

van der Linden, T.J.: An implicit stellar evolution code, with an application to main-sequence evolution 171, 87

van der Linden, T.J.: The evolution of intermediate mass Case B close binaries 178, 170

van der Woerd, H., Heise, J., Paerels, F., Beuermann, K., van der Klis, M., Motch, C., van Paradijs, J.: Discovery of soft X-ray oscillations in VW Hydri 182, 219

van der Zwet, G.P., see Chlewicki, G., et al. 173, 131

van Genderen, A.M., van der Hucht, K.A., Steemers, W.J.G.: A high precision photometric investigation of the micro-variations of Wolf-Rayet stars 185, 131

van Genderen, A.M., see Greve, A. 174, 243

van Groningen, E.: Broad emission line profiles in Seyfert-1 galaxies. I. Evidence for a disk and a wind in Mkn 335 186,

van Langevelde, H.J., see Oort, M.J.A. 186, 361 (71, 25)

Van Leeuwen, F., Alphenaar, P., Meys, J.J.M.: VBLUW observations of Pleiades G and K dwarfs 175, 359 (67, 483)

van Moorsel, G.A.: Dark matter associated with binary galaxies 176, 13

van Paradijs, J., Lewin, W.H.G.: Constraints on the mass-radius relation for the neutron star in the X-ray burst source 4U/ MXB 1820-30 located in the globular cluster NGC 6624 172, L20

van Paradijs, J., van der Klis, M., Augusteijn, T., Charles, P., Corbet, R.H.D., Ilovaisky, S., Maraschi, L., Motch, C., Pakull, M., Smale, A.P., Treves, A., van Amerongen, S.: The relation between optical and X-ray flux variations of the blackhole candidate LMC X-3 184, 201

van Paradijs, J., Verbunt, F., Shafer, R.A., Arnaud, K.A.: Soft X-ray transients in quiescence: observations of Aql X-1 and Cen X-4 182, 47

van Paradijs, J., see de Kool, M. 173, 279

van Paradijs, J., see Vacca, W.D., et al. 172, 143

van Paradijs, J., see van Amerongen, S., et al. 185, 147

van Paradijs, J., see van der Woerd, H., et al. 182, 219

van Santvoort, J., see Cassatella, A., et al. 177, L29 van Santvoort, J., see Wamsteker, W., et al. 177, L21

van' t Veer, C., see Burkhart, C., et al. 172, 257

Vanbeveren, D.: Evolution of massive stars without convective core overshooting 182, 207

Vanderriest, C., see Reboul, H., et al. 177, 337

Vanýsek, V., see Šolc, M., et al. 187, 385

Vardya, M.S.: Shape of the visual light curve and detection of a 1.35 cm H₂O line in single M Miras 182, 75

Varghese, B.A., see Peraiah, A., et al. 180, 278 (69, 345)

Varvoglis, H., see Contopoulos, G., et al. 172, 55

Vauclair, G., Chevreton, M., Dolez, N.: A new pulsating DA white dwarf: PG 2303+243 175, L13

Vauglin, I., see Monin, J.L., et al. 172, 368

Vaz, L.P.R., see Andersen, J. 175, 355

Vaz, L.P.R., see Cristiani et al. 177, L5

Vázquez, M., see Collados, M. 180, 223

Vedrenne, G., see Hudec, R., et al. 175, 71

Veiga, C.H., Vieira Martins, R., Veillet, C., Lazzaro, D.: Position observations of the five greatest Uranian satellites and comparison with theory 185, 354 (70, 325)

Veillet, C., see Veiga, C.H., et al. 185, 354 (70, 325)

Vekstein, G.E.: The theory of magnetic coronal heating 182, 324

Veltri, P., see Carbone, V. 188, 239

Venkatesan, D., see Damle, S.V., et al. 182, L1

Venkatesan, D., see Damle, S.V., et al. 186, L20

Verbunt, F.: Ultraviolet observations of cataclysmic variables: the IUE archive 188, 268 (71, 339)

Verbunt, F., see van Paradijs, J., et al. 182, 47

Verhulst, F., see Pakkert, J.W., et al. 179, 285

Verigin, M.I., Gringauz, K.I., Richter, A.K., Gombosi, T.I., Remizov, A.P., Szegö, K., Apáthy, I., Szemerey, I., Tátrallyay, M., Lezhen, L.A.: Plasma properties from the upstream region to the cometopause of comet P/Halley: Vega observations 187, 121

Verigin, M.I., see Gringauz, K.I., et al. 187, 191

Verigin, M.I., see Gringauz, K.I., et al. 187, 287

Verma, R.P., Iyengar, K.V.K., Rengarajan, T.N.: IRAS observations of RSCVn systems 177, 346

Véron, P., see Hawkins, M.R.S. 182, 271

Véron-Cetty, M.-P., see Moorwood, A.F.M., et al. 184, 63

Véron-Cetty, M.-P., see Woltjer, L. 172, L7

Verschueren, W., see David, M. 186, 295

Vettolani, G., Baiesi-Pillastrini, G.C.: Alignments of galaxies in the Perseus supercluster 175, 9

Vettolani, G., see Santagata, N., et al. 183, 185 (70, 189)

Vettolani, G., see Santagata, N., et al. 183, 186 (70, 191)

Vial, J.-C., see Heinzel, P., et al. 183, 351

Viala, Y., see Le Bourlot, J., et al. 188, 137

Vidal-Madjar, A., Andreani, P., Cristiani, S., Ferlet, R., Lanz, T., Vladilo, G.: The interstellar spectrum toward SN 1987 A 177, L17

Vidal-Madjar, A., see Delbourgo-Salvador, P., et al. 174, 365

Vidal-Madjar, A., see Ferlet, R., et al. 185, 267

Vidal-Madjar, A., see Lagrange, A.M., et al. 173, 289

Viegas-Aldrovandi, S.M., see Contini, M. 185, 39

Viegas-Aldrovandi, S.M., see Gruenwald, R.B. 183, 185 (70, 143)

Vieira Martins, R., see Lazzaro, D., et al. 182, 150

Vieira Martins, R., see Lazzaro, D., et al. 186, 360

Vieira Martins, R., see Veiga, C.H., et al. 185, 354 (70, 325)

Vignato, A., see Iannicola, G., et al. 182, 189

Vigotti, M., see Santagata, N., et al. 183, 186 (70, 191)

Vigouroux, G., see Billaud, G., et al. 176, 190 (68, 67)

Vigroux, L., Stasińska, G., Comte, G.: Some inferences on chemical evolution from a study of irregular and blue compact galaxies 172, 15

Vilchez, J.M., see Muñoz-Tuñon, C. 186, 25

Vilhu, O., see Huovelin, J., et al. 176, 83

Vinas, X., Barranco, M., Treiner, J., Stringari, S.: The incompressibility of hot, neutron-rich nuclear matter 182, L34

Vio, R., see Lamy, P.L., et al. 187, 661

Vishwanath, P.R., see Bhat, P.N., et al. 171, 84.

Vishwanath, P.R., see Bhat, P.N., et al. 178, 242

Vittone, A.A., de Martino, D., Giovannelli, F., Rossi, C.: The nature of the exciting star of RCW 34 179, 157

Vittone, A., see Iijima, T., et al. 178, 203

Vizard, D., see Matthews, N., et al. 184, 284

Vladilo, G., Crivellari, L., Molaro, P., Beckman, J.E.: Detections of diffuse interstellar bands towards the SN 1987 A in the Large Magellanic Cloud 182, L59 Vladilo, G., Molaro, P., Crivellari, L., Foing, B.H., Beckman, J.E., Genova, R.: Chromospheric Mg II h and k emissions free of interstellar contamination: velocity structure in late-type dwarfs and giants 185, 233

Vladilo, G., see Crivellari, L., et al. 174, 127

Vladilo, G., see Vidal-Madjar, A., et al. 177, L17

Vogel, M., see Nussbaumer, H. 182, 51

Voigt, H.H., see Kroll, R., et al. 173, 416 (67, 195)

Volland, H., see Edenhofer, P., et al. 187, 712

Volonté, S., Lion, J., Faucher, P., Dubau, J.: Unresolved dielectronic satellite lines of Ly α Ca xx resonance lines in high temperature plasmas 182, 167

von der Lühe, O., Dunn, R.B.: Solar granulation power spectra from speckle interferometry 177, 265

Vreux, J.M., Magain, P., Manfroid, J., Scuflaire, R.: HD 151932 variability revisited 180, L17

Vreux, J.-M., see Gosset, E. 178, 153

Vreux, J.M., see Manfroid, J., et al. 185, L7

Waelkens, C., Waters, L.B.F.M., Cassatella, A., Le Bertre, T., Lamers, H.J.G.L.M.: HD 213985: a hot post-AGB star in the galactic halo 181, L5

Wagner, S.J.: The kinematical structure of the extended emission-line region of the early-type Seyfert-galaxy Mrk 3 185,

Wainscoat, R.J., de Jong, T., Wesselius, P.R.: IRAS observations of three edge-on galaxies 181, 225

Wallis, M.K., Krishna Swamy, K.S.: Some diatomic molecules from comet P/Halley's UV spectra near spacecraft flybys 187, 329

Wallis, M.K., Rabilizirov, R., Wickramasinghe, N.C.: Evaporating grains in P/Halley's coma 187, 801

Wallis, M.K., see Feldman, P.D., et al. 187, 325

Wallis, M.K., see McDonnell, J.A.M. 187, 719

Wallis, M.K., see Thomsen, M.F., et al. 187, 141

Walmsley, C.M., Menten, K.M.: The molecular counterparts of the submillimeter compact sources in L 1551 and B 335 179, 231

Walmsley, C.M., Hermsen, W., Henkel, C., Mauersberger, R., Wilson, T.L.: Deuterated ammonia in the Orion hot core 172, 311

Walmsley, C.M., see Cernicharo, J., et al. 172, L5

Walmsley, C.M., see Cernicharo, J., et al. 181, L1

Walmsley, C.M., see Guélin, M., et al. 175, L5

Walsh, J.R., see Meaburn, J., et al. 181, 333

Walter, F.M., Neff, J.E., Gibson, D.M., Linsky, J.L., Rodonò, M., Gary, D.E., Butler, C.J.: Rotational modulation and flares on RS CVn and BY Dra stars. IV. The spatially resolved chromosphere of AR Lacertae 186, 241

Walterbos, R.A.M., Kennicutt, R.C., Jr.: Multi-color photographic surface photometry of the Andromeda galaxy 178, 328 (69, 309)

Walterbos, R.A.M., Schwering, P.B.W.: Infrared emission from interstellar dust in the Andromeda Galaxy 180, 27

Wampler, E.J.: Observational study of the Hubble diagram

Wampler, E.J., Truran, J.W., Lucy, L.B., Höflich, P., Hillebrandt, W.: Constraints on the interpretation of the neutrino experiments by the optical observations of SN 1987a 182, L51

Wampler, J., see Hillebrandt, W., et al. 177, L41

Wamsteker, W., Panagia, N., Barylak, M., Cassatella, A., Clavel, J., Gilmozzi, R., Gry, C., Lloyd, C., van Santvoort, J., Talavera, A.: Early observations of Supernova 1987 A with the International Ultraviolet Explorer (IUE) 177, L21

Wamsteker, W., see Cassatella, A., et al. 177, L29

Wamsteker, W., see de Boer, K.S., et al. 177, L37

Wamsteker, W., see Geboer, R.S., et al. 177, L33

Wamsteker, W., see Panagia, N., et al. 177, L25

Wang, Y.-M.: Disc accretion by magnetized neutron stars: a reassessment of the torque 183, 257

Wargau, W., see Chini, R., et al. 181, 378

Warmels, R.H., see Skillman, E.D., et al. 185, 61

Warwick, J.W., see Sawyer, C. 177, 277

Watanabe, J., Kawakami, H., Tomita, K., Kinoshita, H., Nakamura, T., Kozai, Y.: The outburst of comet P/Halley on December 12, 1985 187, 229

Waters, L.B.F.M., Coté, J., Aumann, H.H.: IRAS far-infrared colours of normal stars 172, 225

Waters, L.B.F.M., Coté, J., Lamers, H.J.G.L.M.: IRAS observations of Be stars. II. Far-IR characteristics and mass loss rates 185, 206

Waters, L.B.F.M., see Coté, J. 176, 93

Waters, L.B.F.M., see Lamers, H.J.G.L.M. 182, 80

Waters, L.B.F.M., see Waelkens, C., et al. 181, L5

Weaver, H.A., Mumma, M.J., Larson, H.P.: Infrared investigation of water in comet P/Hallev 187, 411

Weaver, H.A., see Feldman, P.D., et al. 187, 325

Weaver, H.A., see Larson, H.P., et al. 187, 391

Weaver, H.A., see Mumma, M.J., et al. 187, 419

Webber, W.R.: The interstellar cosmic ray spectrum and energy density. Interplanetary cosmic ray gradients and a new estimate of the boundary of the heliosphere 179, 277

Wegmann, R., Schmidt, H.U., Huebner, W.F., Boice, D.C.: Cometary MHD and chemistry 187, 339

Wehinger, P.A., see Belton, M.J.S., et al. 187, 569

Wehrse, R., see Höflich, P. 185, 107

Wehrse, R., see Liebert, J., et al. 175, 173

Weidemann, V.: The initial-final mass relation: galactic disk and Magellanic Clouds 188, 74

Weigelt, G., see Baier, G. 174, 295

Weigelt, G., see Müller, M. 175, 312

Weigelt, G., see Reinheimer, T. 176, L17

Weigert, A., see Kähler, H., et al. 172, 179

Weinberg, J.L., see Toller, G., et al. 188, 24

Weinberger, R., see Hartl, H. 180, 281 (69, 519)

Weinberger, R., see Ishida, K. 178, 227

Weinberger, R., see Saurer, W. 180, 282 (69, 527)

Weinberger, R., see Saurer, W. 185, 358 (70, 531)

Weisberg, J.M., Rankin, J.M., Boriakoff, V.: Neutral hydrogen absorption measurements of ten pulsars and the electron density in the galactic plane 186, 307

Weishavist, V., see McDonnell 187, 719

Weiss, A.: Evolutionary models for R CrB stars 185, 165

Weiss, A.: Linear nonadiabatic pulsations of R CrB models 185, 178

Weiss, A., see Schneider, P. 171, 49

Weiss, W.W., see Baade, D. 173, 217 (67, 147)

Weissman, P.R.: Post-perihelion brightening of comet P/Halley: Springtime for Halley 187, 873

Wendker, H.J.: A catalogue of stars emitting radio continuum 178, 324 (69, 87)

Wendker, H.J., see Baars, J.W.M. 181, 210

Wenzel, K.-P., see Gribov, B.E., et al. 187, 293

Wenzel, K.-P., see Richardson, I.G., et al. 187, 276

Wenzel, K.-P., see Sanderson, T.R., et al. 187, 125

Wenzel, W., see Hudec, R., et al. 175, 71

Werner, R., see Moreels, G., et al. 187, 551

Wesselius, P.R., see Wainscoat, R.J., et al. 181, 225

West, R.M., Lauberts, A., Jørgensen, H.E., Schuster, H.-E.: Astrometry of SN 1987 A and Sanduleak -69202 177, L1

Westergaard, N.J., see Singh, K.P., et al. 172, L11

Westerlund, B.E.: Photometry and spectroscopy of stars in the region of a highly reddened cluster in Ara 185, 354 (70, 311)

Westerlund, B.E., Edvardsson, B., Lundgren, K.: Red stars in the Fornax dwarf galaxy 178, 41

Whipple, F.L.: The cometary nucleus: current concepts 187, 852

Whipple, F.L., see Keller, H.U., et al. 187, 807

Whipple, F.L., see Schwarz, G., et al. 187, 847

White, G.J., Rainey, R., Hayashi, S.S., Kaifu, N.: Molecular line observations of IC 443. The interaction of a molecular cloud and an interstellar shock 173, 337

White, G.J., see Rainey, R., et al. 171, 252

White, G.J., see Rainey, R., et al. 179, 237

White, G.J., see Richardson, K.J., et al. 174, 197

White, N.E., see Barr, P., et al. 176, 69

White, S.M., see Kundu, M.R., et al. 176, 131

Whiteoak, J.B., see Roelfsema, P.R., et al. 175, 219

Wickramasinghe, N.C., see Wallis, M.K., et al. 187, 801

Wiehr, E., see Nesis, A., et al. 182, L5

Wielebinski, R., see Beck, R., et al. 186, 95

Wielebinski, R., see Loiseau, N., et al. 178, 62

Wielebinski, R., see Sieber, W. 177, 342

Wielebinski, R., see Wunderlich, E., et al. 180, 281 (69, 487)

Wilhelm, K., see Keller, H.U., et al. 187, 807

Wilhelm, K., see Schwarz, G., et al. 187, 847

Wilken, B., Johnstone, A., Coates, A., Borg, H., Amata, E., Formisano, V., Jockers, K., Rosenbauer, H., Stüdemann, W., Thomson, M.F., Winningham, J.D.: Pick-up ions at comet P/Halley's bow shock: observations with the IIS spectrometer on Giotto 187, 153

Wilken, B., see Coates, A.J., et al. 187, 55

Wilken, B., see Johnstone, A., et al. 187, 47

Wilken, B., see Johnstone, A.D., et al. 187, 25

Wilken, B., see Thomsen, M.F., et al. 187, 141

Williams, I.P., see Lagerkvist, C.-I. 176, 195 (68, 295)

Williams, O.R., see Sumner, T.J., et al. 188, 273 (71, 557)

Williams, P.M., van der Hucht, K.A., Thé, P.S.: Infrared photometry of late-type Wolf-Rayet stars 182, 91

Williams, P.M., see Sandell, G., et al. 182, 237

Williams, P.M., see van der Hucht, K.A., et al. 175, 356

Willson, L.A., see Girard, T. 183, 247

Wilmsen, U., see Bruch, A., et al. 185, 357 (70, 481)

Wilson, T.L., Jäger, B.: Hydrogen recombination lines: a model of the temperature and density in Orion A 184, 291

Wilson, T.L., Mauersberger, R., Brand, J., Gardner, F.F.: Centimeter and millimeter recombination lines from W3 (OH): Expansion or champagne flow? 186, L5

Wilson, T.L., see Henkel, C., et al. 182, 137

Wilson, T.L., see Henkel, C., et al. 182, 299

Wilson, T.L., see Mauersberger, R., et al. 173, 352

Wilson, T.L., see Menten, K.M., et al. 177, L57

Wilson, T.L., see Roelfsema, P.R., et al. 174, 232

Wilson, T.L., see Walmsley, C.M., et al. 172, 311

Windhorst, R.A., see Oort, M.J.A., et al. 179, 41

Wink, J.E., see Altenhoff, W.J., et al. 184, 381

Wink, J., see Mezger, P.G., et al. 182, 127

Winnberg, A., Ekelund, L., Ekelund, A.: Detection of HCN in comet P/Halley 172, 335

Winnberg, A., see Lindqvist, M., et al. 172, L3

Winningham, J.D., see Coates, A.J., et al. 187, 55

Winningham, J.D., see Johnstone, A.D., et al. 187, 25

Winningham, J.D., see Thomsen, M.F., et al. 187, 141

Winningham, J.D., see Wilken, B., et al. 187, 153

Winningham, J., see Johnstone, A., et al. 187, 47

Winters, R.R., Macklin, R.L., Hershberger, R.L.: The 189 Os (n, γ) cross section and implications for the duration of stellar nucleosynthesis 171, 9

Winther, M., see Knude, J., et al. 179, 115

Witteborn, F.C., see Bregman, J.D., et al. 187, 616

Wittmann, A.D., Xu, Z.T.: A catalogue of sunspot observations from 165 BC to AD 1684 182, 361 (70, 83)

Witzel, A., see Chini, R., et al. 181, 237

Witzel, A., see Eckart, A., et al. 173, 217 (67, 121)

Wlodarczak, G., see Combes, F., et al. 180, L13

Wöhl, H., see Balthasar, H., et al. 174, 359

Wolf, B., Stahl, O., Seifert, W.: High-dispersion spectroscopy of the Of/WN stars R 84 and S 61 of the Large Magellanic Cloud 186, 182

Wolf, B.E.: Acoustic waves in early-type stars. II. The modified equations and the numerical code 179, 371

Wolf, B., see Leitherer, C., et al. 185, 121

Wolf, B., see Stahl, O. 181, 293

Wolf, B., see Stahl, O., et al. 184, 193

Wolfendale, A.W., see Mayer, C.J., et al. 180, 73

Wolstencroft, R.D., see Meaburn, J., et al. 181, 333

Woltjer, L., Véron-Cetty, M.-P.: Discovery of continuum emission in the jet and of absorption in the filaments of the Crab Nebula 172, L7

Wooden, D.H., see Bregman, J.D., et al. 187, 616

Woods, T.N., Feldman, P.D., Dymond, K.F.: The atomic carbon distribution in the coma of comet P/Halley 187, 380

Woods, T.N., see Feldman, P.D., et al. 187, 325

Woodsworth, A.W., see Richardson, K.J., et al. 174, 197

Woodward, D.R., Pearson, J.C., Gottlieb, C.A., Guélin, M., Thaddeus, P.: Laboratory study of the rotational spectrum of vibrationally excited C₂H 186, L14

Woodward, D.R., see Guélin, M., et al. 182, L37

Wootten, A., see Combes, F., et al. 180, L13

Wootten, H.A., see Gerin, M., et al. 173, L1

Wouterloot, J.G.A., see Brand, J., et al. 176, 188 (68, 1)

Wouterloot, J.G.A., see Henkel, C., et al. 182, 299

Woweries, J., see Eberhardt, P., et al. 187, 481

Woweries, J., see Lämmerzahl, P., et al. 187, 169

Wozniak, D., see Savin, S., et al. 187, 89

Wright, A.N.: The structure of ULF waves produced by a tethered satellite system 186, 354

Wroblewski, H., see Torres, C. 178, 322 (69, 23)

Wronowski, P., see Savin, S., et al. 187, 89

Wu, G.J., see Gong, et al. 187, 594

Wu, M.C., Qiu, P.Z.: Activity of the plasma tail of comet P/ Halley in March 1986 187, 264

Wu, S.T., see Nakagawa, Y., et al. 179, 354

Wulf-Mathies, C., see Jordan, S., et al. 185, 253

Wunderlich, E., Klein, U., Wielebinski, R.: A further study of the relation of the radio-far-infrared in galaxies. I. Observations and data processing 180, 281 (69, 487)

Wunner, G., see Östreicher et al. 173, L1

Wunner, G., see Seifert, W., et al. 183, L1

Wyckoff, S., see Belton, M.J.S., et al. 187, 569 Wyler, D., see Paganini, R., et al. 177, 84

Xie, Guang.-Zhong., Li, Kai.-Hua., Bao, Men.-Xien., Hau, Peng.-Jiu., Zhou, Yuan., Liu, Xin.-De., Deng, Li.-Wu.: The optical variability of seven BL Lacertae objects 173, 214 (67, 17)

Xiradaki, E., Kontizas, M., Kontizas, E.: Spectral classification of bright stars in LMC clusters 173, 215 (67, 25)

Xiradaki, E., Kontizas, M., Kontizas, E.: Spectral classification of bright stars in remote LMC clusters. III 178, 326 (69, 211)

Xiradaki, E., see Kontizas, E., et al. 177, 350 (68, 357)

Xiradaki, E., see Kontizas, E., et al. 188, 274 (71, 575)

Xu, Z.T., see Wittmann, A.D. 182, 361 (70, 83)

Xuefu, L., see Huisong, T. 172, 74

Xuefu, L., see Huisong, T. 172, 74

Yahel, R.Z., Brinkmann, W., Braun, A.: The formation of radiation-driven winds in bursting neutron stars: non-LTE models 176, 223

Yakovlev, O.I., see Armand, N.A., et al. 183, 135

Yamashita, T., Sato, S., Nagata, T., Suzuki, H., Hough, J.H., McLean, I.S., Garden, R., Gatley, I.: Polarimetric mapping of a new infrared reflection nebula GGD 27 IRS 177, 258

Yeomans, D.K., see Belton, M.J.S., et al. 187, 569

Yepes, G., see Dominguez-Tenreiro, R. 177, 5

Yeroshenko, Y.G., Styashkin, V.A., Riedler, W., Schwingenschuh, K., Russel, C.T.: Fine structure of the magnetic field in comet P/Halley's coma 187, 69

Yilmaz, N., see Aslan, Z., et al. 188, 274 (71, 597)

Yorke, H.W., see Kunze, R., et al. 182, 1

Yoshii, Y., Arimoto, N.: Spheroidal systems as a one-parameter family of mass at their birth 188, 13

Yoshii, Y., see Arimoto, N. 173, 23

Young, A., see Sterken, C., et al. 177, 150

Young, D.T., see Balsiger, H., et al. 187, 163

Young, D.T., see Goldstein, R., et al. 187, 220

Younger, P.F., see van den Bergh, S. 182, 362 (70, 125)

Youssef, N.H., Khalil, N.M.: The solar platinum content 186, 333

Yu, T.L., see Finkenthal, M., et al. 184, 337

Yumoto, K., Saito, T., Nakagawa, T.: Hydromagnetic waves associated with cometary water group ions: Sakigake observation 187, 117

Yumoto, K., see Saito, T., et al. 187, 201

Yumoto, K., see Saito, T., et al. 187, 209

Yung, Y., see Allen, M., et al. 187, 502

Zacharias, N., see de Vegt, C. 188, 272 (71, 525)

Zakharov, D., see Vaisberg, O.L., et al. 187, 183

Zamorano, J., see González-Riestra, R., et al. 186, 64

Zappala', V., see Di Martino, M., et al. 173, 216 (67, 95)

Zarka, P., see Boischot, A., et al. 175, 287

Zarka, P., see Genova, F., et al. 182, 159

Zarnecki, J.C., see McDonnell 187, 719

Zastenker, G., see Vaisberg, O.L., et al. 187, 183

Zdunik, J.L., Haensel, P., Schaeffer, R.: Phase transitions in stellar cores. II. Equilibrium configurations in general relativity 172, 95

Zealey, W.J., see Sandell, G., et al. 182, 237

Zeidler-KT, E.-M.: Synthetic spectra of cool, helium-rich white dwarfs with different metal abundances 177, 351 (68, 469)

Zeippen, C.J.: Improved radiative transition probabilities for OII forbidden lines 173, 410

Zeippen, C.J., Butler, K., Le Bourlot, J.: Effective collision strengths for fine-structure forbidden transitions in the 3p³ configuration of Arry 188, 251

Zeippen, C.J., see Mendoza, C. **179**, 339 Zeippen, C.J., see Mendoza, C. **179**, 346

Zenchenko, V., see Hudec, R., et al. 175, 71

Zeng, Q., Sun, J., Lou, G.F.: SiO emission from the Orion KL region 172, 299

Zensus, J.A., see Biermann, P.L., et al. 185, 9

Zensus, J.A., see Chini, R., et al. 181, 237

Zhang, C.Y., Leene, A., Pottasch, S.R., Mo, J.E.: IRAS observations of the Dumbbell Nebula 178, 247

Zhang, C.Y., see Taylor, A.R., et al. 171, 178

Zhang, Q.Z., Fang, C.: Semi-empirical models of a quiescent prominence 175, 277

Zhang, X.F., see Gong, et al. 187, 594

Zhou, Yuan., see Xie, Guang.-Zhong., et al. 173, 214 (67, 17)

Zickgraf, F.-J., see Balona, L.A., et al. 181, 11 (71, 11)

Zickgraf, F.-J., see Balona, L.A., et al. 186, 361 (71, 11)

Zickgraf, F.-J., see Leitherer, C. 174, 103

Zickgraf, F.-J., see Leitherer, C., et al. 185, 121

Zickgraf, F.-J., see Stahl, O., et al. 184, 193

Zijlstra, A., see Pottasch, S.R., et al. 177, L49

Zimmerman, B.A., see Humblet, J., et al. 177, 317

Ziolkowski, K., see Sitarski, G. 187, 896

Zipse, J.E., see Golden, R.L., et al. 188, 145

Zirbel, E., see Leitherer, C., et al. 185, 121

Zöchling, J., Muthsam, H.: An analysis of the manganese star HD 78316 (κ Cnc) 176, 75

Zubkov, B.V., see Sagdeev, R.Z., et al. 187, 179

Zuccarello, F., Burm, H., Kuperus, M., Raadu, M., Spicer, D.S.: Varying self-inductance and energy storage in a sheared forcefree arcade 180, 218

Zucconi, J.M., see Moreels, G., et al. 187, 551

Zuckerman, B., Lo, K.Y.: H₂O maser emission from stars in the IRAS point-source catalog 173, 263

Zuiderwijk, E., see Lindgren, H., et al. 188, 39

Zwickl, R.D., see Brosius, J.W., et al. 187, 267

Zwickl, R.D., see Sanderson, T.R., et al. 187, 125,

Annual Subject Index

Astronomy and Astrophysics, Volumes 171–188 (1987) Supplement Series, Volumes 67–71 (1987)

Volume and page numbers of articles published in the Supplement Series are printed in italics

The cross references for the key words are stored in the computer. Therefore they are always printed, even if in the respective year no paper belonging to a particular cross reference is published.

Absolute magnitudes; see Stars: luminosities of

Abundances; see under the different objects

Acceleration mechanisms

A numerical study of steady-state shock acceleration Achterberg, A. 174, 329

Cyclotron radiation, conservation laws and a correction to the synchrotron loss formula

Lieu, R., Quenby, J.J., Sumner, T.J. 176, L21

The diffuse radio emission from the Coma cluster

Schlickeiser, R., Sievers, A., Thiemann, H. 182, 21

Magnetic field and synchrotron radiation in mildly relativistic shocks

Courvoisier, T.J.-L., Camenzind, M. 183, 167

Analysis of the electron measurements from the Plasmag-1 experiment on board Vega-2 in the vicinity of comet P/Halley

Gringauz, K.I., Remizov, A.P., Verigin, M.I., Richter, A.K., Tàtrallyay, M., Szegö, K., Klimenko, I.N., Apàthy, I., Gombosi, T.I., Szemerey, T. 187, 287

Accretion, accretion disks

Disappearance of periodic X-ray minima in AM Her Priedhorsky, W., Marshall, F.J., Hearn, D.R. 173, 95 The light curves of low-mass X-ray binaries

Frank, J., King, A.R., Lasota, J.-P. 178, 137

Spectroscopic and photometric studies of the symbiotic star AG Dra

Iijima, T., Vittone, A., Chochol, D. 178, 203

Disk formation at the magnetosphere of wind-fed pulsars: application to Vela X-1

Börner, G., Hayakawa, S., Nagase, F., Anzer, U. 182, 63 Discovery of soft X-ray oscillations in VW Hydri

van der Woerd, H., Heise, J., Paerels, F., Beuermann, K., van der Klis, M., Motch, C., van Paradijs, J. 182, 219

The 67-min X-ray period of EX Hydrae observed with the *EIN-STEIN* observatory

Heise, J., Mewe, R., Kruszewski, A., Chlebowski, T. 183, 73 Disc accretion by magnetized neutron stars: a reassessment of the torque

Wang, Y.-M. 183, 257

Stationary shocks in accretion disks

Spruit, H.C. 184, 173

The relation between optical and X-ray flux variations of the black-hole candidate LMC X-3

van Paradijs, J., van der Klis, M., Augusteijn, T., Charles, P., Corbet, R.H.D., Ilovaisky, S., Maraschi, L., Motch, C., Pakull, M., Smale, A.P., Treves, A., van Amerongen, S. 184, 201

Hydromagnetic flows from rapidly rotating compact objects. II. The relativistic axisymmetric jet equilibrium

Camenzind, M. 184, 341

The dynamical instability of a rotating cylinder as a model for a Keplerian disk

Hanawa, T. 185, 160

Simultaneous five-colour (UBVRI) polarimetry of EF Eri Piirola, V., Reiz, A., Coyne, G.V. 186, 120

The influence of external magnetic fields on the structure of thin accretion disks

Anzer, U., Börner, G., Meyer-Hofmeister, E. 188, 85

Ultraviolet observations of cataclysmic variables: the IUE archive

Verbunt, F. 188, 268; 71, 339

Analytical methods

Approximate analytical solutions of the Lane-Emden equation in *N*-dimensional space

Horedt, G.P. 172, 359

Deprojection of the de Vaucouleurs r^{1/4} brightness profile *Mellier*, Y., Mathez, G. 175, 1

Topology of the Lane-Emden equation

Horedt, G.P. 177, 117

The thermal stability of coronal loops by nonlinear diffusion asymptotics

Pakkert, J.W., Martens, P.C.H., Verhulst, F. 179, 285

Complex instability around the rotation axis of stellar systems. II. Rotating oscillators

Pfenniger, D. 180, 79

A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R. 182, 150

Statistical problems about the use of the ordinary least-squares method in astrometry. Application to the Paris-astrolable data *Bougeard*, M.L. 183, 156

A unified treatment of polarized light emerging from a homogeneous plane-parallel atmosphere

Hovenier, J.W. 183, 363

Expansion of the disturbing force-function for the study of high-eccentricity librations

Ferraz-Mello, S. 183, 397

Erratum: A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R. 186, 360

Associations; see Clusters: open, and associations

Asteroids

Elliptic orbit of asteroid 1985 CQ1 and theoretical considerations

Debehogne, H. 172, 342

Rotational properties and light curves of the minor planets 94, 107, 197, 201, 360, 451, 511 and 702

Di Martino, M., Zappala', V., De Campos, J.A., Debehogne, H., Lagerkvist, C.-I. 173, 216; 67, 95

Three characteristic orbital parameters for the Trojan group of asteroids

Bien, R., Schubart, J. 175, 292

Trojan asteroids: relations between dynamical parameters Schubart, J., Bien, R. 175, 299

Physical studies of asteroids. XV. Determination of slope parameters and absolute magnitudes for 51 asteroids

Lagerkvist, C.-I., Williams, I.P. 176, 195; 68, 295

Photoelectric five-coulour photometry of the asteroids 16 Psyche, 201 Penelope, and 702 Alauda

Pfleiderer, J., Pfleiderer, M., Hanslmeier, A. 178, 324; 69, 117

Orbital evolution of asteroids near the secular resonance v_6 Froeschlé, Ch., Scholl, H. 179, 294

The mass of the asteroid (10) Hygiea derived from observations of (829) Academia

Scholl, H., Schmadel, L.D., Röser, S. 179, 311

Physical studies of asteroids. XVI. Photoelectric photometry of 17 asteroids

Lagerkvist, C.-I., Hahn, G., Magnusson, P., Rickman, H. 182, 359: 70. 21

Rotation and variability of the large C-type asteroid 375 Ursula Schober, H.J. 183, 151

Expansion of the disturbing force-function for the study of higheccentricity librations

Ferraz-Mello, S. 183, 397

Optical evolution of laboratory-produced organics: applications to Phoebe, Iapetus, outer belt asteroids and cometary nuclei Andronico, G., Baratta, G.A., Spinella, F., Strazzulla, G. 184, 333

Astrometry

Elliptic orbit of asteroid 1985 CQ1 and theoretical considerations

Debehogne, H. 172, 342

Statistical detection of disturbing effects in observations. An example: visual observations with astrolabes (Text in French)

Bougeard, M. 173, 191

Note on Li's expression of corrections for the deflection of light in the case of astrolabe observations

Manabe, S. 173, 212

Santiago declination catalogue. A declination catalogue of 412 FK4 stars (equinox 1950.0)

Carrasco, G. Loyola, P. 173, 214; 67, 1

Erratum: Sur la position "optique" et "radio" du système a Scorpii (Optical and radio positions of α Scorpii)

Clauzet, L.B.F., Débarbat, S., Chollet, F. 173, 415

Results of observations made in Paris with the astrolabe (Text in French)

Chollet, F., Débarbat, S., Golbasi, O., Hascoët, J.-C., Lam, S.K., Lehman, M., Mangombi dei Ilonga, J., Texier, P. 173, 419; 67, 297

Micrometric measurements of triple systems north of +70° declination (Text in German)

Schmeidler, F. 173, 419; 67, 303

Comparison of the declination systems of the General Catalogue observed with photoelectric astrolabes of China and five modern meridian catalogues

Li Qi 174, 306

Astrometric positions of comet Giacobini-Zinner in 1985 Barbieri, C., Kranjc, A., Scardia, M. 175, 360; 67, 507

Observation results obtained with the photoelectric astrolabe at CERGA: time and latitude. March 1, 1983 - December 31, 1984 (Text in French)

Billaud, G., Boche, R., Furia, M., Meyer, C., Mignard, F., Pham-Van, J., Pochet, J.M., Vigouroux, G. 176, 190; 68, 67

Designation and nomenclature for astronomical sources of radiation

Dickel, H.R., Lortet, M.-C., de Boer, K.S. 176, 190; 68, 75 Photographic observations of visual double stars (magnetic

van Albada-van Dien, E., Panjaitan, E. 176, 191; 68, 117 UBV photometry of stars whose positions are accurately known. IV

Oja, T. 176, 193; 68, 211

Astrometry of SN 1987 A and Sanduleak -69 202

West, R.M., Lauberts, A., Jørgensen, H.E., Schuster, H.-E. 177, L1

Optical position of Alpha Scorpii A

Noël, F. 177, 310

Catalogues of declinations and proper motions of 36 Belgrade zenith stars

Teleki, G., Grujić, R. 177, 313

Search for systematic effects in photographic measurements of visual binaries

Morbidelli, R., Pannunzio, R. 177, 351; 68, 481

Precise optical positions of strong extragalactic radio sources south of $\delta = +5^\circ$

Torres, C., Wroblewski, H. 178, 322; 69, 23

Sun observations in 1984-1985 at the CERGA astrolabe (Text in French)

Laclare, F., Journet, A. 178, 323; 69, 77

Meridian observations of Uranus and Neptune at Bordeaux Observatory. Comparison with ephemerides

Rapaport, M., Requième, Y., Mazurier, J.M., Francou, G. 179,

Optical and radio astrometry of four late-type stars with maser emission

, de Vegt, C., Kleine, T., Johnston, K.J., Bowers, P.F., Spencer, J.H. 179, 322

Time observations with the Photoelectric Transit Instrument at the Observatory of Torino in the period 1980.3-1985.3, reduced in the MERIT Standards

Chiumiento, G., Sarasso, M. 180, 279; 69, 415

An objective-prism survey for Hα-emission-line stars of a field in **Puppis**

Pettersson, B. 182, 361; 70, 69

Statistical problems about the use of the ordinary least-squares method in astrometry. Application to the Paris-astrolable data

Bougeard, M.L. 183, 156

Systematic and external errors of trigonometric parallaxes Breakiron, L.A. 183, 185; 70, 157

Right ascension corrections to 120 FK 4-stars by the analysis of time observations obtained with the Photoelectric Transit Instrument at Torino Observatory

Chiumiento, G., Sarasso, M., Poma, A. 183, 403

Radio source structure from geodetic VLBI observations: 8 GHz multi-epoch maps of the quasar 4C 39.25

Tang, G., Rönnäng, B., Baath, L. 185, 87

Position observations of the five greatest Uranian satellites and comparison with theory

Veiga, C.H., Vieira Martins, R., Veillet, C., Lazzaro, D. 185, 354; 70, 325

Results of observations made in Paris with the astrolabe. Time and latitude 1986

Chollet, F., Débarbat, S., Hascoët, J.-C., Lam, S.K., Mangombi dei Ilonga, J., Texier, P. 186, 363; 71, 109

Astrometric positions of comet P/Halley

Barbieri, C., Kranjc, A., Scardia, M., Cremonese, G. 187, 893

GUST 86. An analytical ephemeris of the Uranian satellites Laskar, J., Jacobson, R.A. 188, 212

Weights of star positions in meridian circle catalogues

Bien, R. 188, 225

Catalogue of astrometric observations of Comet P/Halley at its apparition 1909-1911

Röser, S. 188, 268; 71, 363

A catalog of precise reference star positions for the astrometry network of the international comet P/Halley campaign

de Vegt, C., Zacharias, N. 188, 272; 71, 525

UBV photometry of stars whose positions are accurately known. V

Oja, T. 188, 273; 71, 561

Astronomical constants

Galilean satellite evolution: observational evidence for secular changes in mean motions

Lieske, J.H. 176, 146

Atlases

An atlas and catalogue of northern dwarf novae Bruch, A., Fischer, F.-J., Wilmsen, U. 185, 357; 70, 481

Atomic and molecular data

Simple estimates for Stark broadening of ion lines in stellar plas-

Dimitrijević, M.S., Konjević, N. 172, 345

Improved radiative transition probabilities for OII forbidden lines

Zeippen, C.J. 173, 410

Fe II oscillator strengths

Kroll, S., Kock, M. 173, 417; 67, 225

Radiative atomic data for neutral magnesium. I. Oscillator strengths

Mendoza, C., Zeippen, C.J. 179, 339

Radiative atomic data for neutral magnesium. II. Photoionization cross sections

Mendoza, C., Zeippen, C.J. 179, 346

An LTE analysis of the solar photospheric Ti1 and Cr1 spectra: evidence for non-LTE in excitation

Blackwell, D.E., Booth, A.J., Menon, S.L.R., Petford, A.D. 180, 229

Oscillator strength measurements in the vacuum-ultraviolet. II. The strong 1260, 1277, 1329, 1463, 1561 and 1657 Å multiplets of neutral carbon

Goldbach, C., Nollez, G. 181, 203

Unresolved dielectronic satellite lines of Ly α Ca XX resonance lines in high temperature plasmas

Volonté, S., Lion, J., Faucher, P., Dubau, J. 182, 167

Refined diatomic partition functions. I. Calculational methods and H_2 and CO results

Irwin, A.W. 182, 348

Numerical fits to the electron impact transition rate coefficients for atomic hydrogen as a function of electron temperature

Giovanardi, G., Natta, A., Palla, F. 183, 188; 70, 269 The spectrum of comet P/Halley from 3.0 to 4.0 µm

Danks, A.C., Encrenaz, T., Bouchet, P., Le Bertre, T., Chalabaev, A. 184, 329

Laboratory study of the rotational spectrum of vibrationally excited C₂H

Woodward, D.R., Pearson, J.C., Gottlieb, C.A., Guélin, M., Thaddeus, P. 186, L14

Electronic spectroscopy and relaxation of some molecular cations of cometary interest

Leach, S. 187, 195

Rotational structure of the (2,0) Phillips band of C_2 in comet P/Halley

Appenzeller, I., Münch, G. 187, 465

Effective collision strengths for fine-structure forbidden transitions in the $3p^3$ configuration of ArIV

Zeippen, C.J., Butler, K., Le Bourlot, J. 188, 251

Atomic and molecular processes; see also Chemical reactions

Anomalous Zeeman effect and its influence on the line absorption and dispersion coefficients

Mathys, G., Stenflo, J.O. 171, 368

Polarimetry of visible and near-UV molecular bands: comets P/Halley and Hartley-Good

Le Borgne, J.F., Leroy, J.L., Arnaud, J. 173, 180

A multilevel study of ammonia in star-forming regions. I. Maser and thermal emission toward W 51 IRS 2

Mauersberger, R., Henkel, C., Wilson, T.L. 173, 352

Anomalous Zeeman effect: moments and expansion coefficients Mathys, G., Stenflo, J.O. 175, 361; 67, 557

Rotational and vibrational synthetic spectra of linear parent molecules in comets

Crovisier, J. 176, 194; 68, 223

Hollow H_{II} regions. II. Mechanism for wind energy dissipation and diffuse X-ray emission

Dorland, H., Montmerle, T. 177, 243

The photodissociation lifetimes of the NH radical in comets Singh, P.D., Gruenwald, R.B. 178, 277

Thermal diffusion in partially ionized gases: the case of unequal temperatures

Geiss, J., Bürgi, A. 178, 286

Dielectronic recombination at low temperatures. IV. Recombination coefficients for neon

Nussbaumer, H., Storey, P.J. 178, 324; 69, 123

Resonance scattering of Lyman- α in the presence of an electrostatic field

Favati, B., Landi Degl'Innocenti, E., Landolfi, M. 179, 329

Radiative atomic data for neutral magnesium. I. Oscillator strengths

Mendoza, C., Zeippen, C.J. 179, 339

Radiative atomic data for neutral magnesium. II. Photoionization cross sections

Mendoza, C., Zeippen, C.J. 179, 346

Photochemistry and molecular ions in carbon-rich circumstellar envelopes

Glassgold, A.E., Mamon, G.A., Omont, A., Lucas, R. 180, 183 Ionization balance for iron XXV, XXIV and XXIII derived from solar flare X-ray spectra

Antonucci, E., Dodero, M.A., Gabriel, A.H., Tanaka, K., Dubau, J. 180, 263

Ion-collision broadening of solar lines in the far-infrared and sub-millimeter spectrum

Hoang-Binh, D., Brault, P., Picart, J., Tran-Minh, N., Vallée, O. 181, 134

Relative emission-line strengths for Fe VII in astrophysical plasmas

Keenan, F.P., Norrington, P.H. 181, 370

A theoretical study of the H_3^+ +CO protonation process. I. The formation of HCO $^+$

Talbi, D., Pauzat, F. 181, 394

Theoretical studies of the faint features in the $S_0(0)$ line of H_2 observed in the Voyager IRIS mission

Schaefer, J. 182, L40

Numerical fits to the electron impact transition rate coefficients for atomic hydrogen as a function of electron temperature

Giovanardi, G., Natta, A., Palla, F. 183, 188; 70, 269

SiIV line ratios in laboratory plasmas: a comparison of experimental data and theoretical computations

Finkenthal, M., Yu, T.L., Allen, S.L., Huang, L.K., Lippmann, S., Moos, H.W., Stratton, B.C., Dufton, P.L., Kingston, A.E. 184, 337

Erratum: Anomalous Zeeman effect: moments and expansion coefficients

Mathys, G., Stenflo, J.O. 185, 358; 70, 142

Observations of ions in comet P/Halley with a focal reducer Jockers, K., Geyer, E.H., Rosenbauer, H., Hänel, A. 187, 256

The spectrum of comet P/Halley between 0.9 and 2.5 µm Maillard, J.P., Crovisier, J., Encrenaz, T., Combes, M. 187, 398

Infrared investigation of water in comet P/Halley Weaver, H.A., Mumma, M.J., Larson, H.P. 187, 411

The ortho-para ratio of water vapor in comet P/Halley Mumma, M.J., Weaver, H.A., Larson, H.P. 187, 419

A rotational-state population analysis of the high-resolution IUE observation of CS emission in comet P/Halley

Prisant, M.G., Jackson, W.M. 187, 489

Search for methane in comet P/Halley

Drapatz, S., Larson, H.P., Davis, D.S. 187, 497

Evidence for methane and ammonia in the coma of comet P/Halley

Allen, M., Delitsky, M., Huntress, W., Yung, Y., Ip, W.-H., Schwenn, R., Rosenbauer, H., Shelley, E., Balsiger, H., Geiss, J. 187, 502

Rotational equilibrium of C_2 in diffuse interstellar clouds. I. Static model: the case of ζ Ophiuchi

Le Bourlot, J., Roueff, E., Viala, Y. 188, 137

Calcium ionization balance and argon/calcium abundance in solar flares

Antonucci, E., Marocchi, D., Gabriel, A.H., Doschek, G.A. 188, 159

Effective collision strengths for fine-structure forbidden transitions in the $3p^3$ configuration of ArIV

Zeippen, C.J., Butler, K., Le Bourlot, J. 188, 251

Binary stars; see Stars: binaries

BL Lacertae objects

The active galaxy PKS 0521-36 and its optical jet Cayatte, V., Sol, H. 171, 25

A gravitational lens origin for AGN-variability? Consequences of micro-lensing

Schneider, P., Weiss, A. 171, 49

The optical variability of seven BL Lacertae objects

Xie Guang-Zhong, Li Kai-Hua, Bao Men-Xien, Hau Peng-Jiu, Zhou Yuan, Liu Xin-De, Deng Li-Wu 173, 214; 67, 17

Investigation of a complete sample of flat spectrum radio sources from the S5 survey. II. Results

Eckart, A., Witzel, A., Biermann, P., Johnston, K.J., Simon, R., Schalinski, C., Kühr, H. 173, 217; 67, 121

Redshifts of quasar candidates

Cristiani, S., Koehler, B. 176, 196; 68, 339

X-ray/optical brightness trends in 3C 66A

Maccagni, D., Garilli, B., Schild, R., Tarenghi, M. 178, 21

The correlation between radio and optical variations in OJ 287 Valtaoja, L., Sillanpää, A., Valtaoja, E. 184, 57 Five years monitoring of extragalactic radio sources. I. Observations at 12, 22 and 37 GHz

Salonen, E., Teräsranta, H., Urpo, S., Tiuri, M., Moiseev, I.G., Nesterov, N.S., Valtaoja, E., Haarla, S., Lehto, H., Valtaoja, L., Teerikorpi, P., Valtonen, M. 185, 356; 70, 409

77 GHz continuum observations of variable extragalactic sources

Teräsranta, H., Valtaoja, E., Haarala, S., Elo, A.-M., Valtonen, M., Salonen, E., Urpo, S., Tiuri, M., Laurikainen, E. 186, 364; 71, 125

Optical identifications and radio morphology of the complete 5 GHz S5 survey

Kühr, H., Johnston, K.J., Odenwald, S., Adlhoch, J. 188, 272; 71, 493

The optical polarization properties of blazars Kulshrestha, A., Deshpande, M.R., Joshi, U.C. 188, 273; 71, 565

Black holes

Cyclotron radiation, conservation laws and a correction to the synchrotron loss formula

Lieu, R., Quenby, J.J., Sumner, T.J. 176, L21

An evolutionary scenario for the black hole binary A0620-00 de Kool, M., van den Heuvel, E.P.J., Pylyser, E. 183, 47

The relation between optical and X-ray flux variations of the black-hole candidate LMC X-3

van Paradijs, J., van der Klis, M., Augusteijn, T., Charles, P., Corbet, R.H.D., Ilovaisky, S., Maraschi, L., Motch, C., Pakull, M., Smale, A.P., Treves, A., van Amerongen, S. 184, 201

Catalogues and dictionaries

Santiago declination catalogue. A declination catalogue of 412 FK4 stars (equinox 1950.0)

Carrasco, G, Loyola, P. 173, 214; 67, 1

A catalogue of early-type galaxies with emission lines Bettoni, D., Buson, L.M. 173, 420; 67, 341

Comparison of the declination systems of the General Catalogue observed with photoelectric astrolabes of China and five modern meridian catalogues

Li Qi 174, 306

Radial velocities of southern stars obtained with the photoelectric scanner CORAVEL. VI. 233 F to M type stars in and near the Small Magellanic Cloud. Comparison with 80 spectrographic radial velocities of O to K type stars in this Galaxy

Maurice, E., Andersen, J., Ardeberg, A., Bardin, C., Imbert, M., Lindgren, H., Martin, N., Mayor, M., Nordström, B., Prévot, L., Rebeirot, E., Rousseau, J. 175, 358; 67, 423

Search for (globular) clusters in M31. IV. Candidates in a $3^{\circ} \times 3^{\circ}$ square field centred on M31

Battistini, P., Bònoli, F., Braccesi, A., Federici, L., Fusi Pecci, F., Marano, B., Börngen, F. 175, 358; 67, 447

BVR photometry of late-type stars in the direction of the Large Magellanic Cloud

Robin, A., Martin, N., Peyrin, Y., Prévot, L., Rebeirot, E., Rousseau, J. 176, 189; 68, 63

Designation and nomenclature for astronomical sources of radiation

Dickel, H.R., Lortet, M.-C., de Boer, K.S. 176, 190; 68, 75

An annotated bibliographical catalogue of multivariate statistical methods and of their astronomical applications (magnetic tape) *Murtagh, F., Heck, A.* 176, 191; 68, 113

Catalogues of declinations and proper motions of 36 Belgrade zenith stars

Teleki, G., Grujić, R. 177, 313

H_I observations of galaxies in between the Local and the Hydra/ Centaurus superclusters

Richter, O.-G., Huchtmeier, W.K. 177, 351; 68, 427

Ooty lunar occultation survey of radio sources

Singal, A.K. 178, 324; 69, 91

An objective-prism survey for $H\alpha$ -emission-line stars of a field in Puppis

Pettersson, B. 182, 361; 70, 69

Warm IRAS sources. I. A catalogue of AGN candidates from the point source catalog

de Grijp, M.H.K., Miley, G.K., Lub, J. 182, 362; 70, 95

Accurate positions of Zwicky galaxies. II

Santagata, N., Basso, L., Gottardi, M., Palumbo, G.G.C., Vettolani, G. 183, 185; 70, 189

Accurate positions of Zwicky galaxies. III

Santagata, N., Basso, L., Gottardi, M., Palumbo, G.G.C., Vettolani, G., Vigotti, M. 183, 186; 70, 191

Right ascension corrections to 120 FK 4-stars by the analysis of time observations obtained with the Photoelectric Transit Instrument at Torino Observatory

Chiumiento, G., Sarasso, M., Poma, A. 183, 403

Standard photometric diameters of galaxies. III. Reduction of the diameters in the ESO-B and SGC catalogues to the standard diameter system at the 25 mag arcsec⁻² brightness level

Paturel, G., Fouqué, P., Lauberts, A., Valentijn, E.A., Corwin, H.G., de Vaucouleurs, G. 184, 86

Near-infrared photometry of globular clusters in the outer halo of M 31

Bònoli, F., Delpino, F., Federici, L., Fusi Pecci, F. 185, 25

Catalogue of cataclysmic binaries, low-mass X-ray binaries and related objects (fourth edition)

Ritter, H. 185, 355; 70, 335

An atlas and catalogue of northern dwarf novae

Bruch, A., Fischer, F.-J., Wilmsen, U. 185, 357; 70, 481

UBV photoelectric catalogue (1986). II. Analysis of the data Mermilliod, J.-C. 186, 364; 71, 119

Fine dust structures in the emission of comet P/Halley observed by the Halley Multicolour Camera on board Giotto

Thomas, N., Keller, H.U. 187, 843

UBV photometric photometry catalogue (1986). I. The original data (magnetic tape)

Mermilliod, J.-C. 188, 270; 71, 413

A catalog of precise reference star positions for the astrometry network of the international comet P/Halley campaign

de Vegt, C., Zacharias, N. 188, 272; 71, 525

Celestial mechanics

Secular variations of the semimajor axes: theory and experiments

Milani, A., Nobili, A.M., Carpino, M. 172, 265

Elliptic orbit of asteroid 1985 CQ1 and theoretical considerations

Debehogne, H. 172, 342

Successive bifurcations and evolution of double and quadruple periodic orbits in the restricted three-body problem

Pinotsis, A.D. 174, 317

Three characteristic orbital parameters for the Trojan group of asteroids

Bien, R., Schubart, J. 175, 292

Trojan asteroids: relations between dynamical parameters Schubart, J., Bien, R. 175, 299

Computation of the first and second derivatives of the Lagrange equations by harmonic analysis (Text in French)

Simon, J.-L. 175, 303

Galilean satellite evolution: observational evidence for secular changes in mean motions

Lieske, J.H. 176, 146

Orbital evolution of asteroids near the secular resonance v₆ Froeschlé, Ch., Scholl, H. 179, 294

Chaos and secular variations of planar orbits in 2:1 resonance with Dione

Ferraz-Mello, S., Dvorak, R. 179, 304

The mass of the asteroid (10) Hygiea derived from observations of (829) Academia

Scholl, H., Schmadel, L.D., Röser, S. 179, 311

Complex instability around the rotation axis of stellar systems. II. Rotating oscillators

Pfenniger, D. 180, 79

Long-term numerical integrations and synthetic theories for the motion of the outer planets

Carpino, M., Milani, A., Nobili, A.M. 181, 182

An investigation of the motions of the node and perihelion of Mercury

Rana, N.C. 181, 195

Corrections to the theory of the orbit of Saturn's satellite Hyperion

Taylor, D.B., Sinclair, A.T., Message, P.J. 181, 383

A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R. 182, 150

Restrictions on the motion in the general four-body problem Sergysels, R., Loks, A. 182, 163

Expansion of the disturbing force-function for the study of high-eccentricity librations

Ferraz-Mello, S. 183, 397

Comparison of Bretagnon's VSOP 82 theory with observations of Neptune

Gomes, R.S., Ferraz-Mello, S. 185, 327

Position observations of the five greatest Uranian satellites and comparison with theory

Veiga, C.H., Vieira Martins, R., Veillet, C., Lazzaro, D. 185, 354; 70, 325

Erratum: A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R. 186, 360
A new approach to investigations of the long-term motion of comet P/Halley

Sitarski, G., Ziolkowski, K. 187, 896

High-order librations of Halley-type comets

Carusi, A., Kresák, L., Perozzi, E., Valsecchi, G.B. 187, 899

GUST 86. An analytical ephemeris of the Uranian satellites Laskar, J., Jacobson, R.A. 188, 212

A catalog of precise reference star positions for the astrometry network of the international comet P/Halley campaign de Vegt, C., Zacharias, N. 188, 272; 71, 525

Chemical reactions

Deuterated C₃H₂ as a clue to deuterium chemistry Gerin, M., Wootten, H.A., Combes, F., Boulanger, F., Peters III, W.L., Kuiper, T.B.H., Encrenaz, P.J., Bogey, M. 173, L1 Acetone in interstellar space

Combes, F., Gerin, M., Wootten, A., Wlodarczak, G., Clausset, F., Encrenaz, P.J. 180, L13

A theoretical study of the H_3^+ +CO protonation process. I. The formation of HCO $^+$

Talbi, D., Pauzat, F. 181, 394

The composition and dynamics of cometary ions in the outer coma of comet P/Halley

Balsiger, H., Altwegg, K., Bühler, F., Fuselier, S.A., Geiss, J., Goldstein, B.E., Goldstein, R., Huntress, W.T., Ip, W.-H., Lazarus, A.J., Meier, A., Neugebauer, M., Rettenmund, U., Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E., Young, D.T. 187, 163

Charge exchange of solar wind ions in the coma of comet P/Hal-

Shelley, E.G., Fuselier, S.A., Balsiger, H., Drake, J.F., Geiss, J., Goldstein, B.E., Goldstein, R., Ip, W.-H., Lazarus, A.J., Neugebauer, M. 187, 304

Evaporating grains in P/Halley's coma

Wallis, M.K., Rabilizirov, R., Wickramasinghe, N.C. 187, 801

Clusters: globular

Empirical colour-metallicity relations for Population II giant stars

Martinez Roger, C. 171, 77

Effects of cosmions in the Sun and in globular cluster stars Renzini, A. 171, 121

Constraints on the mass-radius relation for the neutron star in the X-ray burst source 4U/MXB 1820-30 located in the globular cluster NGC 6624

van Paradijs, J., Lewin, W.H.G. 172, L20

Observational tests for stellar evolution and pulsation theory. I. The globular clusters M4 and M15

Caputo, F. 172, 67

Spectral classification of bright stars in LMC clusters Xiradaki, E., Kontizas, M., Kontizas, E. 173, 215; 67, 25

M62: a link between M13-like and Oosterhoff I globular clusters

Caloi, V., Castellani, V., Piccolo, F. 173, 416; 67, 181

CCD photometry in globular clusters. II. NGC 7492

Buonanno, R., Corsi, C.E., Ferraro, I., Fusi Pecci, F. 173, 419; 67, 327

Deep photometry of globular clusters. VI. E2 and E3 Gratton, R.G., Ortolani, S. 175, 357; 67, 373

Search for (globular) clusters in M31. IV. Candidates in a $3^{\circ} \times 3^{\circ}$ square field centred on M31

Battistini, P., Bònoli, F., Braccesi, A., Federici, L., Fusi Pecci, F., Marano, B., Börngen, F. 175, 358; 67, 447

Equivalent widths for giants in metal rich globular clusters. I Gratton, R.G., Quarta, M.L., Ortolani, S. 176, 188; 68, 21

The galactic globular cluster system: constraints from Synthetic Horizontal Branches

Caputo, F., De Stefanis, P., Paez, E., Quarta, M.L. 176, 192; 68, 119

Observed dynamical parameters of the disk clusters of the LMC.

Kontizas, M., Chrysovergis, M., Kontizas, E. 176, 192; 68, 147

The metal abundance of metal-rich globular clusters. IV. Oxygen abundances

Gratton, R.G. 177, 177

Spectral classification of bright stars in LMC clusters. II. Kontizas, E., Kontizas, M., Xiradaki, E. 177, 350; 68, 357 Masses and tidal radii of the star clusters in the halo of the LMC.

Kontizas, M., Hadjidimitriou, D., Kontizas, E. 177, 352; 68, 493

Application of the infrared flux method to globular cluster stars. The M3 giant branch

Arribas, S., Martinez Roger, C. 178, 106

Spectral classification of bright stars in remote LMC clusters. III

Xiradaki, E., Kontizas, M., Kontizas, E. 178, 326; 69, 211

CCD photometry of AC 211/X 2127+119: The 8.5 h period of the X-ray binary in the M 15 globular cluster

Ilovaisky, S.A., Aurière, M., Chevalier, C., Koch-Miramond, L., Cordoni, J.P., Angebault, L.P. 179, L1

The metal abundance of metal-rich globular clusters. III. NGC 288, NGC 362, NGC 5897, NGC 6352 and NGC 6362 Gratton, R.G. 179, 181

Dark clouds in front of globular clusters

Sandell, G., Stevens, M.A., Heiles, C. 179, 255

X-ray and UV observations of ω Centauri with EXOSAT Koch-Miramond, L., Aurière, M. 183, 1

The galactic globular cluster system: calibration of the ratio R = N(HB)/N(RGB)

Caputo, F., Martinez Roger, C., Paez, E. 183, 228

Studies of dynamical properties of globular clusters. III. Anisotropy in ω Centauri

Meylan, G. 184, 144

Mass-loss of globular cluster red giants. A semi-empirical estima-

Martinez Roger, C., Paez, E. 184, 155

Evolution of stellar binaries formed by tidal capture

Ray, A., Kembhavi, A.K., Antia, H.M. 184, 164

Near-infrared photometry of globular clusters in the outer halo of M 31

Bònoli, F., Delpino, F., Federici, L., Fusi Pecci, F. 185, 25

An interpretation of the line-strength indices in old stellar populations using an evolutionary synthesis approach

Aragón, A., Gorgas, J., Rego, M. 185, 97

White dwarfs in Omega Centauri?

Ortolani, S., Rosino, L. 185, 102

Near-infrared spectral properties of star clusters and galactic nuclei

Bica, E., Alloin, D. 186, 49

The Oosterhoff dichotomy revisited. I. The ranking of RR Lyrae periods versus metallicity

Castellani, V., Quarta, M.L. 186, 361; 71, 1

Deep photometry of globular clusters. X. The cluster GIC0435-59 in Reticulum

Gratton, R.G., Ortolani, S. 186, 364; 71, 131

Spheroidal systems as a one-parameter family of mass at their birth

Yoshii, Y., Arimoto, N. 188, 13

Distribution of spectral types in the LMC clusters

Kontizas, E., Kontizas, M., Xiradaki, E. 188, 274; 71, 575 High resolution observations of stars in the peculiar globular cluster ω Cen

Spite, M., Huille, S., François, P., Spite, F. 188, 274; 71, 591

Clusters: of galaxies

A blue ring-like structure in the center of the A 370 cluster of galaxies

Soucail, G., Fort; B., Mellier, Y., Picat, J.P. 172, L14

Detection of features in the large-scale galaxy distribution from wide-angle samples of objective-prism spectra

Parker, Q.A., Beard, S.M., MacGillivray, H.T. 173, L5

Cluster population incompleteness bias and distances from the Tully-Fisher relation: theory and numerical examples

Teerikorpi, P. 173, 39

New measurements of radial velocities in clusters of galaxies Proust, D., Talavera, A., Salvador Sole, E., Mazure, A., Capelato, H.V. 173, 215; 67, 57

The Hydra I cluster of galaxies. III. New redshifts Richter, O.-G. 173, 417; 67, 237

Redshifts for galaxies in southern clusters

Richter, O.-G. 173, 418; 67, 261

Deprojection of the de Vaucouleurs r^{1/4} brightness profile *Mellier*, Y., Mathez, G. 175, 1

Alignments of galaxies in the Perseus supercluster Vettolani, G., Baiesi Pillastrini, G.C. 175, 9

CCD surface photometry of galaxies in the cluster Shapley 1346-30

Daly, P.N., Phillipps, S., Disney, M.J. 176, 188; 68, 33

The effect of pressure in the Local Supercluster and the anisotropy of the Hubble flow

Goicoechea, L.J., Sanz, J.L. 177, 1

Morphological analysis of massive early-type galaxies in the Virgo Cluster

Bender, R., Möllenhoff, C. 177, 71

A statistical method to derive the true distribution of an astronomical parameter some values of which are known only by limits

Chamaraux, P. 177, 326

H_I observations of galaxies in between the Local and the Hydra/ Centaurus superclusters

Richter, O.-G., Huchtmeier, W.K. 177, 351; 68, 427

A search for diffuse neutral hydrogen in filaments of galaxies Altschuler, D.R., Davis, M.M., Giovanardi, C. 178, 16

Radio observations of the first ranked galaxies in A98, A115, A160, A278, and A568

Giovannini, G., Feretti, L., Gregorini, L. 178, 325; 69, 171 Stabilization and consequences of relativistic electron bumps in extragalactic radio sources

Lesch, H., Schlickeiser, R. 179, 93

Radial velocities of galaxies in the cluster Klemola 22 from observations with OPTOPUS, the ESO multiple object spectroscopy facility

Cristiani, S., de Souza, R., D'Odorico, S., Lund, G., Quintana, H. 179, 108

Biased galaxies and non-linear correlations

Schaeffer, R. 180, L5

Malmquist bias in the determination of the distance to the Hercules supercluster

Giraud, E. 180, 50

Cluster population incompleteness bias and the value of H_0 from the Tully-Fischer B_T^0 relation

Bottinelli, L., Fouqué, P., Gouguenheim, L., Paturel, G., Teerikorpi, P. 181, 1

Scaling laws for the probability of holes in the galaxy distribu-

Schaeffer, R. 181, L23

The metallicity versus luminosity relationship for early-type galaxies

Bica, E., Alloin, D. 181, 270

High resolution radio observations of NGC 4874

Feretti, L., Giovannini, G. 182, 15

Arcs, light echoes, and supergalaxies

Katz, J.I. 182, L19

The light-echo model for luminous arcs

Milgrom, M. 182, L21

The diffuse radio emission from the Coma cluster

Schlickeiser, R., Sievers, A., Thiemann, H. 182, 21

 ${\it B}$ and ${\it V}$ photometry of two distant galaxy clusters with 6 m telescope plates

Iannicola, G., Kalloghlian, A., Nanni, D., Vignato, A. 182, 189

The Seyfert 2 galaxy IC 184 and its surrounding group Kollatschny, W., Fricke, K.J. 183, 9

A study of the elongation of Abell clusters. I. A sample of 37 clusters studied earlier by Binggeli and Struble & Peebles

Rhee, G.F.R.N., Katgert, P. 183, 217

Further data on the blue ring-like structure in A 370

Soucail, G., Mellier, Y., Fort, B., Hammer, F., Mathez, G. 184, L7

Fragmenting the universe. I. Statistics of two-dimensional Voronoi foams

Icke, V., van de Weygaert, R. 184, 16

The Perseus supercluster at low galactic latitudes

Hauschildt, M. 184, 43

Data reduction and spectrophotometric performances of PUMA 1: an on-line multiaperture spectroscopic system used at the CFHT

Soucail, G., Mellier, Y., Fort, B., Picat, J.P., Cailloux, M. 184, 361

Neutral hydrogen observations of four dwarf irregular galaxies in the Virgo Cluster

Skillman, E.D., Bothun, G.D., Murray, M.A., Warmels, R.H. 185, 61

An expanding shell of galaxies in the center of the Hydra I cluster?

Fouqué, P. 185, 94

50 kpc radio trails behind irregular galaxies in A 1367 Gavazzi, G., Jaffe, W. 186, L1

Magnitude-redshift test: cosmological inhomogeneity effects Goicoechea, L.J., Martin-Mirones, J.M. 186, 22

Morphological population and first-ranked galaxy morphology in loose groups of galaxies

Ramella, M., Giuricin, G., Mardirossian, F., Mezzetti, M. 188,

Clusters: open, and associations

Measurement of lithium abundance in dwarf stars of M 67 Spite, F., Spite, M., Peterson, R.C., Chaffee, F.H., Jr. 171, L8

The stellar association LH 39 in the Large Magellanic cloud and its Wolf-Rayet star

Schild, H. 173, 405

Ara OB1: A stellar association formed by the action of an energetic event?

Arnal, E.M., Cersosimo, J.C., May, J., Bronfman, L. 174, 78 A population of faint blue stars in a southern external part of the Large Magellanic Cloud

Pierre, M. 175, 54

VBLUW observations of Pleiades G and K dwarfs

Van Leeuwen, F., Alphenaar, P., Meys, J.J.M. 175, 359; 67, 483

Strömgren and H β photometry of early-type stars in northern open clusters. I. NGC 7039, NGC 7063

Schneider, H. 175, 361; 67, 545

Kinematics of young open clusters and the rotation curve of our Galaxy

Hron, J. 176, 34

Hollow H II regions. II. Mechanism for wind energy dissipation and diffuse X-ray emission

Dorland, H., Montmerle, T. 177, 243

List of radial velocities of 258 stars near Alpha Persei (Text in French)

Fehrenbach, C., Burnage, R., Figuière, J., Traversa, G., Agniel, C. 177, 352; 68, 515

Evidences for a bifurcation in massive star evolution. The ONblue stragglers

Maeder, A. 178, 159

Photoelectric search for CP 2-stars in open clusters. IX. Pleiades and Coma Berenices. The case of Pleione

Maitzen, H.M., Pavlovski, K. 178, 313

Kinematical origin of the dark clouds in Taurus and of some nearby galactic clusters

Olano, C.A., Pöppel, W.G.L. 179, 202

The region of the supernova remnant MSH 15-52 revisited: A new thermal H II region, H II G 320.5-1.4

Lortet, M.-C., Georgelin, Y.P., Georgelin, Y.M. 180, 65

Speckle interferometric observations of the Wolf-Rayet star AS 431 and of early-type stars in Cyg OB 2

Lortet, M.C., Blazit, A., Bonneau, D., Foy, R. 180, 111

Evolutionary constraints for young stellar clusters. I. The luminosity function of H-burning stars

Brocato, E., Castellani, V. 182, 36

Variations in UV extinction in galactic associations and perpendicular to the galactic plane

Kiszkurno-Koziej, E., Lequeux, J. 185, 291

Photometry and spectroscopy of stars in the region of a highly reddened cluster in Ara

Westerlund, B.E. 185, 354; 70, 311

Membership of Cepheids and red giants in 8 open clusters: NGC 129, 6067, 6087, 6649, 6664, IC 4725, Ly 5, Ru 79

Mermilliod, J.C., Mayor, M., Burki, G. 185, 356; 70, 389 Near-infrared spectral properties of star clusters and galactic nuclei

Bica, E., Alloin, D. 186, 49

Strömgren photometry of open clusters. II. NGC3532 Schneider, H. 186, 365; 71, 147

Erratum: List of radial velocities of 258 stars near Alpha Persei Fehrenbach, C., Burnage, R., Figuière, J., Traverse, G., Agniel, C. 186, 366; 71, 185

The local kinematics of open star clusters

Lyngå, G., Palouš, J. 188, 35

Properties of blue stragglers in young OB associations *Mathys, G.* 188, 265; 71, 201

Photoelectric search for CP2-stars in open clusters. X. NGC 2232, NGC 2343, Cr 140, and Tr 10

Jenkner, H., Maitzen, H.M. 188, 266; 71, 255

Photoelectric search for CP2-stars in open clusters. XI. NGC 3532 and NGC 5662

Maitzen, H.M., Schneider, H. 188, 270; 71, 431

Photoelectric search for CP2-stars in open clusters. XII. Alpha Persei, Praesepe and NGC 7243

Maitzen, H.M., Pavlovski, K. 188, 271; 71, 441

Strömgren photometry of open clusters. III. NGC2323, NGC5662

Schneider, H. 188, 272; 71, 531

Collisions, atomic and molecular; see Atomic and molecular data

Comets

Density and brightness distribution of cometary dust tails Richter, K., Keller H.U. 171, 317

A new approach to the Finson-Probstein method of interpreting cometary dust tails

Fulle, M. 171, 327

Detection of HCN in comet P/Halley

Winnberg, A., Ekelund, L., Ekelund, A. 172, 335

Polarimetry of visible and near-UV molecular bands: comets P/Halley and Hartley-Good

Le Borgne, J.F., Leroy, J.L., Arnaud, J. 173, 180

Infrared photometry of comet P/Halley before perihelion Bouchet, P., Chalabaev, A., Danks, A., Encrenaz, T., Epchtein, N., Le Bertre, T. 174, 288

Comet IRAS-Araki-Alcock (1983 VIII): distribution of the dust and of gaseous species in the vicinity of the nucleus

Festou, M.C., Encrenaz, T., Boisson, C., Pedersen, H., Tarenghi, M. 174, 299

Astrometric positions of comet Giacobini-Zinner in 1985 Barbieri, C., Kranjc, A., Scardia, M. 175, 360; 67, 507

Rotational and vibrational synthetic spectra of linear parent molecules in comets

Crovisier, J. 176, 194; 68, 223

The nature of two anomalous structures observed in the dust tail of comet Bennett 1970 II: a possible Neck-Line Structure Pansecchi, L., Fulle, M., Sedmak, G. 176, 358

The photodissociation lifetimes of the NH radical in comets Singh, P.D., Gruenwald, R.B. 178, 277

Molecular observations of comets P/Giacobini-Zinner 1984e and P/Halley 1982i at millimetre wavelengths

Bockelée-Morvan, D., Crovisier, J., Despois, D., Forveille, T., Gérard, E., Schraml, J., Thum, C. 180, 253

A possible Neck-Line Structure in the dust tail of comet Halley Fulle, M. 181, L13

Photoprocessing of H₂S in interstellar grain mantles as an explanation for S₂ in comets

Grim, R.J.A., Greenberg, J.M. 181, 155

A model for the excitation of water in comets Bockelée-Morvan, D. 181, 169

Meteoroids from comet Bennett 1970II

Fulle, M. 183, 392

The spectrum of comet P/Halley from 3.0 to 4.0 µm

Danks, A.C., Encrenaz, T., Bouchet, P., Le Bertre, T., Chala-baev, A. 184, 329

Optical evolution of laboratory-produced organics: applications to Phoebe, lapetus, outer belt asteroids and cometary nuclei

Andronico, G., Baratta, G.A., Spinella, F., Strazzulla, G. 184,

New information on comet P/Halley as depicted by Giotto di Bondone and other Western artists

Olson, R.J.M., Pasachoff, J.M. 187, 1

Encounters with comets: discoveries and puzzles in cometary plasma physics

Galeev, A.A. 187, 12

The pick-up of cometary protons by the solar wind

Neugebauer, M., Lazarus, A.J., Altwegg, K., Balsiger, H., Goldstein, B.E., Goldstein, R., Neubauer, F.M., Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E. 187, 21

Alfvénic turbulence in the solar wind flow during the approach to comet P/Halley

Johnstone, A.D., Coates, A.J., Heath, J., Thomsen, M.F., Wilken, B., Jockers, K., Formisano, V., Amata, E., Winningham, J.D., Borg, H., Bryant, D.A. 187, 25

General features of comet P/Halley: solar wind interaction from plasma measurements

Rème, H., Sauvaud, J.A., d'Uston, C., Cros, A., Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Korth, A., Richter, A.K., Mendis, D.A. 187, 33

The Sakigake/Suisei encounter with comet P/Halley Hirao, K., Itoh, T. 187, 39

Waves in the magnetic field and solar wind flow outside the bow shock at comet P/Halley

Johnstone, A., Glassmeier, K., Acuna, M., Borg, H., Bryant, D., Coates, A., Formisano, V., Heath, J., Mariani, F., Musmann, G., Neubauer, F., Thomsen, M., Wilken, B., Winningham, J. 187, 47

Solar wind flow through the comet P/Halley bow shock

Coates, A.J., Johnstone, A.D., Thomsen, M.F., Formisano, V., Amata, E., Wilken, B., Jockers, K., Winningham, J.D., Borg, H., Bryant, D.A. 187, 55

Macroscopic perturbations of the IMF by P/Halley as seen by the Giotto magnetometer

Raeder, J., Neubauer, F.M., Ness, N.F., Burlaga, L.F. 187, 61 Low-frequency magnetic field fluctuations in comet P/Halley's magnetosheath: Giotto observations

Glaßmeier, K.H., Neubauer, F.M., Acuña, M.H., Mariani, F. 187. 65

Fine structure of the magnetic field in comet P/Halley's coma Yeroshenko, Y.G., Styashkin, V.A., Riedler, W., Schwingenschuh, K., Russel, C.T. 187, 69

Giotto magnetic-field results on the boundaries of the pile-up region and the magnetic cavity

Neubauer, F.M. 187, 73

Identification of boundaries in the cometary environment from ac electric field measurements

Mogilevsky, M., Mikhailov, Y., Molchanov, O., Grard, R., Pedersen, A., Trotignon, J.G., Béghin, C., Formisano, V., Shapiro, V., Shevchenko, V. 187, 80

Dust observations of comet P/Halley by the plasma-wave analyser

Trotignon, J.G., Béghin, C., Grard, R., Pedersen, A., Formisano, V., Mogilevsky, M., Mikhailov, Y. 187, 83

Comparative study of the low-frequency waves near comet P/ Halley during the Vega-1 and Vega-2 flybys

Savin, S., Avanesova, G., Balikhin, M., Wozniak, D., Wronowski, P., Klimov, S., Krawczyk, Z., Nozdrachev, M., Orlowski, D., Sokolov, A., Juchniewicz, J. 187, 89

Plasma flow in the cometosheath of P/Halley during the encounter of Suisei

Takahashi, S., Terasawa, T., Mukai, T., Kitayama, M., Miyake, W., Hirao, K. 187, 94

MHD waves detected by ICE at distances ≥28 10⁶ km from comet P/Halley: Cometary or solar wind origin?

Tsurutani, B.T., Brinca, A.L., Smith, E.J., Thorne, R.M., Scarf, F.L., Gosling, J.T., Ipavich, F.M. 187, 97

Plasma-tail activity at the time of the Vega encounters Niedner, M.B., Jr., Schwingenschuh, K. 187, 103

Observations of cometary plasma-wave phenomena Scarf, F.L., Coroniti, F.V., Kennel, C.F., Gurnett, D.A., Ip, W.-H., Smith, E.J. 187, 109

Hydromagnetic waves associated with cometary water group ions: Sakigake observation

Yumoto, K., Saito, T., Nakagawa, T. 187, 117

Plasma properties from the upstream region to the cometopause of comet P/Halley: Vega observations

Verigin, M.I., Gringauz, K.I., Richter, A.K., Gombosi, T.I., Remizov, A.P., Szegö, K., Apáthy, I., Szemerey, I., Tátrallyay, M., Lezhen, L.A. 187, 121

Observations of heavy energetic ions far upstream from comet P/Hallev

Sanderson, T.R., Wenzel, K.-P., Daly, P.W., Cowley, S.W.H., Hynds, R.J., Richardson, I.G., Smith, E.J., Bame, S.J., Zwickl, R.D. 187, 125

Spatial distribution of water-group ions near comet P/Halley observed by Suisei

Mukai, T., Miyake, W., Terasawa, T., Kitayama, M., Hirao, K. 187, 129

An interpretation of the ion pile-up region outside the ionospheric contact surface

Ip, W.-H., Schwenn, R., Rosenbauer, H., Balsiger, H., Neugebauer, M., Shelley, E.G. 187, 132

Description of the main boundaries seen by the Giotto electron experiment inside comet P/Halley-solar wind interaction region

d'Uston, C., Rème, H., Sauvaud, J.A., Cros, A., Anderson, K.A., Carlson, C.W., Curtis, D., Lin, R.P., Korth, A., Richter, A.K., Mendis, A. 187, 137

In-situ observations of a bi-modal ion distribution in the outer coma of comet P/Halley

Thomsen, M.F., Feldman, W.C., Wilken, B., Jockers, K., Stüdemann, W., Johnstone, A.D., Coates, A., Formisano, V., Amata, E., Winningham, J.D., Borg, H., Bryant, D., Wallis, M.K. 187, 141

The composition and radial dependence of cometary ions in the coma of comet P/Halley

Korth, A., Richter, A.K., Mendis, D.A., Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Mitchell, D.L., Rème, H., Sauvaud, J.A., d'Uston, C. 187, 149

Pick-up ions at comet P/Halley's bow shock: observations with the IIS spectrometer on Giotto

Wilken, B., Johnstone, A., Coates, A., Borg, H., Amata, E., Formisano, V., Jockers, K., Rosenbauer, H., Stüdemann, W., Thomson, M.F., Winningham, J.D. 187, 153

Ion temperature and flow profiles in comet P/Halley's close environment

Schwenn, R., Ip, W.-H., Rosenbauer, H., Balsiger, H., Bühler, F., Goldstein, R., Meier, A., Shelley, E.G. 187, 160

The composition and dynamics of cometary ions in the outer coma of comet P/Halley

Balsiger, H., Altwegg, K., Bühler, F., Fuselier, S.A., Geiss, J., Goldstein, B.E., Goldstein, R., Huntress, W.T., Ip, W.-H., Lazarus, A.J., Meier, A., Neugebauer, M., Rettenmund, U., Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E., Young, D.T. 187, 163

Expansion velocity and temperatures of gas and ions measured in the coma of comet P/Halley

Lämmerzahl, P., Krankowsky, D., Hodges, R.R., Stubbemann, U., Woweries, J., Herrwerth, I., Berthelier, J.J., Illiano, J.M., Eberhardt, P., Dolder, U., Schulte, W., Hoffman, J.H. 187, 169

Giotto-IMS observations of ion-flow velocities and temperatures outside the magnetic cavity of comet P/Halley

Goldstein, B.E., Neugebauer, M., Balsiger, H., Drake, J., Fuselier, S.A., Goldstein, R., Ip, W.-H., Rettenmund, U., Rosenbauer, H., Schwenn, R., Shelley, E.G. 187, 174 The dependence of mass resolution and sensitivity of the PUMA instrument on the energy spread of ions produced by hypervelocity impacts

Sagdeev, R.Z., Kissel, J., Evlanov, E.N., Fomenkova, M.N., Inogamov, N.A., Khromov, V.N., Managadze, G.G., Prilutski, O.F., Shapiro, V.D., Shutyaev, I.Y., Zubkov, B.V. 187, 179

Spatial distribution of heavy ions in comet P/Halley's coma Vaisberg, O.L., Zastenker, G., Smirnov, V., Khazanov, B., Omelchenko, A., Fedorov, A., Zakharov, D. 187, 183

Quasi-periodic features and the radial distribution of cometary ions in the cometary plasma region of comet P/Halley

Gringauz, K.I., Verigin, M.I., Richter, A.K., Gombosi, T.I., Szegö, K., Tátrallyay, M., Remizov, A.P., Apáthy, I. 187, 191 Electronic spectroscopy and relaxation of some molecular cations of cometary interest

Leach, S. 187, 195

Possible models on disturbances of the plasma tail of comet P/Halley during the 1985-1986 apparition

Saito, T., Saito, K., Aoki, T., Yumoto, K. 187, 201

Structure and dynamics of the plasma tail of comet P/Halley. I. Knot event on December 31, 1985

Saito, T., Yumoto, K., Hirao, K., Minami, S., Saito, K., Smith, E. 187, 209

Structure and dynamics of the plasma tail of comet P/Halley. II. Kink event on January 10-11, 1986

Tomita, K., Saito, T., Minami, S. 187, 215

Hot ions observed by the Giotto ion mass spectrometer at the comet P/Halley contact surface

Goldstein, R., Young, D.T., Balsiger, H., Buehler, F., Goldstein, B.E., Neugebauer, M., Rosenbauer, H., Schwenn, R., Shelley, E.G. 187, 220

Photographic observations of tail-formation activities of comet P/Halley in November 1985

Liu, Z.L. 187, 225

The outburst of comet P/Halley on December 12, 1985

Watanabe, J., Kawakami, H., Tomita, K., Kinoshita, H., Nakamura, T., Kozai, Y. 187, 229

Structure and dynamics of plasma-tail condensations of comet P/ Halley 1986 and inferences on the structure and activity of the cometary nucleus

Celnik, W.E., Schmidt-Kaler, T. 187, 233

Observations of the coma of comet P/Halley and the outburst of 1986 March 24-25 (UT)

Rettig, T.W., Kern, J.R., Ruchti, R., Baumbaugh, B., Baumbaugh, A.E., Knickerbocker, K.L., Dawe, J. 187, 249

Observations of ions in comet P/Halley with a focal reducer Jockers, K., Geyer, E.H., Rosenbauer, H., Hänel, A. 187, 256 Two disconnection events in comet P/Halley and possible solar causes

Lundstedt, H., Magnusson, P. 187, 261

Activity of the plasma tail of comet P/Halley in March 1986 Wu, M.C., Qiu, P.Z. 187, 264

The cause of two plasma-tail disconnection events in comet P/Halley during the ICE-Halley radial period

Brosius, J.W., Holman, G.D., Niedner, M.B., Brandt, J.C., Slavin, J.A., Smith, E.J., Zwickl, R.D., Bame, S.J. 187, 267

Energy spectra of energetic ions in the vicinity of comet P/Giacobini-Zinner

Richardson, I.G., Cowley, S.W.H., Moore, V., Staines, K., Hynds, R.J., Sanderson, T.R., Wenzel, K.-P., Daly, P.W. 187, 276

Plasma structures in comets P/Halley and Giacobini-Zinner Brandt, J.C., Niedner, M.B., Jr. 187, 281 Analysis of the electron measurements from the Plasmag-1 experiment on board Vega-2 in the vicinity of comet P/Halley

Gringauz, K.I., Remizov, A.P., Verigin, M.I., Richter, A.K., Tàtrallyay, M., Szegö, K., Klimenko, I.N., Apàthy, I., Gombosi, T.I., Szemerey, T. 187, 287

The upstream region, foreshock and bow shock wave at comet P/Halley from plasma electron measurements

Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Rème, H., Sauvaud, J.A., d'Uston, C., Korth, A., Richter, A.K., Mendis, D.A. 187, 290

Stochastic Fermi acceleration of ions in the pre-shock region of comet P/Halley

Gribov, B.E., Kecskeméty, K., Sagdeev, R.Z., Shapiro, V.D., Shevchenko, V.I., Somogyi, A.J., Szegö, K., Erdös, G., Eroshenko, E.G., Gringauz, K.I., Keppler, E., Marsden, R.G., Remizov, A.P., Richter, A.K., Riedler, W., Schwingenschuh, K., Wenzel, K.-P. 187, 293

Measurements of low energy electrons and spacecraft potentials near comet P/Halley

Pedersen, A., Grard, R., Trotignon, J.G., Beghin, C., Mikhailov, Y., Mogilevsky, M. 187, 297

Charge exchange of solar wind ions in the coma of comet P/Hallev

Shelley, E.G., Fuselier, S.A., Balsiger, H., Drake, J.F., Geiss, J., Goldstein, B.E., Goldstein, R., Ip, W.-H., Lazarus, A.J., Neugebauer, M. 187, 304

Fluid simulation of comet P/Halley's ionosphere

Baumgärtel, K., Sauer, K. 187, 307

Unusual characteristics of electromagnetic waves excited by cometary newborn ions with large perpendicular energies

Brinca, A.L., Tsurutani, B.T. 187, 311

Far-ultraviolet objective spectra of comet P/Halley from sounding rockets

Opal, C.B., McCoy, R.P., Carruthers, G.R. 187, 320

IUE observations of comet P/Halley: evolution of the ultraviolet spectrum between September 1985 and July 1986

Feldman, P.D., Festou, M.C., A'Hearn, M.F., Arpigny, C., Butterworth, P.S., Cosmovici, C.B., Danks, A.C., Gilmozzi, R., Jackson, W.M., McFadden, L.A., Patriarchi, P., Schleicher, D.G., Tozzi, G.P., Wallis, M.K., Weaver, H.A., Woods, T.N. 187, 325

Some diatomic molecules from comet P/Halley's UV spectra near spacecraft flybys

Wallis, M.K., Krishna Swamy, K.S. 187, 329

Activity of comet P/Halley on March 23-25, 1986: IUE observations

McFadden, L.A., A'Hearn, M.F., Feldman, P.D., Roettger, E.E., Edsall, D.M., Butterworth, P.S. 187, 333

Cometary MHD and chemistry

Wegmann, R., Schmidt, H.U., Huebner, W.F., Boice, D.C. 187, 339

Atomic hydrogen production rates for comet P/Halley from observations with Dynamics Explorer 1

Craven, J.D., Frank, L.A. 187, 351

The spectrum of P/Halley's coma obtained with an objective-prism

Florsch, A., Marcout, J., Traversa, G. 187, 357

Comet P/Halley neutral gas density profile along the Vega-1 trajectory measured by the Neutral Gas Experiment

Curtis, C.C., Fan, C.Y., Hsieh, K.C., Hunten, D.M., Ip, W.-H., Keppler, E., Richter, A.K., Umlauft, G., Afonin, V.V., Dyachkov, A.V., Erö, J., Jr., Somogyi, A.J. 187, 360

Low-resolution maps of comet P/Halley in principal atomic and molecular species

Kidger, M.R., Acosta, J.A., Garzón, F., Prieto, M., Gómez, R. 187, 363

Pioneer Venus measurements of H, O, and C production in comet P/Halley near perihelion

Stewart, A.I.F. 187, 369

Anisotropy of the neutral gas distribution of comet P/Halley deduced from NGE/Vega-1 measurements

Hsieh, K.C., Curtis, C.C., Fan, C.Y., Hunten, D.M., Ip, W.-H., Keppler, E., Richter, A.K., Umlauft, G., Afonin, V.V., Erö, J., Jr., Somogyi, A.J. 187, 375

The atomic carbon distribution in the coma of comet P/Halley

Woods, T.N., Feldman, P.D., Dymond, K.F. 187, 380 Carbon-isotope ratio in PUMA 1 spectra of P/Halley dust Solc, M., Vanýsek, V., Kissel, J. 187, 385

Study of the isotopic features of Swan bands in comets Krishna Swamy, K.S. 187, 388

Kinematic properties of the neutral gas outflow from comet P/Halley

Larson, H.P., Mumma, M.J., Weaver, H.A. 187, 391

The spectrum of comet P/Halley between 0.9 and 2.5 µm Maillard, J.P., Crovisier, J., Encrenaz, T., Combes, M. 187, 398

Anisotropic non-stationary gas flow dynamics in the coma of comet P/Halley

Kömle, N.I., Ip, W.-H. 187, 405

Infrared investigation of water in comet P/Halley

Weaver, H.A., Mumma, M.J., Larson, H.P. 187, 411

The ortho-para ratio of water vapor in comet P/Halley Mumma, M.J., Weaver, H.A., Larson, H.P. 187, 419

The $2.7~\mu m$ water band of comet P/Halley: interpretation of observations by an excitation model

Bockelée-Morvan, D., Crovisier, J. 187, 425

Curves of growth of emission lines in cometary spectra. Implications for H₂O and OH bands of comet P/Halley Krasnopolsky, V.A., Tkachuk, A.Y. 187, 431

The D/H ratio in water from comet P/Halley

Eberhardt, P., Dolder, U., Schulte, W., Krankowsky, D., Lämmerzahl, P., Hoffman, J.H., Hodges, R.R., Berthelier, J.J., Illiano, J.M. 187, 435

Improved gas-kinetic treatment of cometary water sublimation and recondensation: application to comet P/Halley

Crifo, J.F. 187, 438
Detection of OH rotational emission from comet P/Halley in the

Stacey, G.J., Lugten, J.B., Genzel, R. 187, 451

18-cm wavelength radio monitoring of the OH radical in comet P/Halley (1982i)

Gérard, E., Bockelée-Morvan, D., Bourgois, G., Colom, P., Crovisier, J. 187, 455

10.7 GHz continuum observations of comet P/Halley Falchi, A., Gagliardi, L., Palagi, F., Tofani, G., Comoretto, G. 187, 462

Rotational structure of the (2,0) Phillips band of C_2 in comet P/ Halley

Appenzeller, I., Münch, G. 187, 465

OH radio observations of comet P/Halley

Schloerb, F.P., Claussen, M.J., Tacconi-Garman, L. 187, 469 Observations of HCN in comet P/Halley

Schloerb, F.P., Kinzel, W.M., Swade, D.A., Irvine, W.M. 187, 475

The CO and N₂ abundance in comet P/Halley

Eberhardt, P., Krankowsky, D., Schulte, W., Dolder, U., Lämmerzahl, P., Berthelier, J.J., Woweries, J., Stubbemann, U., Hodges, R.R., Hoffman, J.H., Illiano, J.M. 187, 481

Resolution of the [O1]+NH2 blend in comet P/Halley

Arpigny, C., Magain, P., Manfroid, J., Dossin, F., Danks, A.C., Lambert, D.L. 187, 485

A rotational-state population analysis of the high-resolution IUE observation of CS emission in comet P/Halley Prisant, M.G., Jackson, W.M. 187, 489

Search for methane in comet P/Halley

Drapatz, S., Larson, H.P., Davis, D.S. 187, 497

Evidence for methane and ammonia in the coma of comet P/Halley

Allen, M., Delitsky, M., Huntress, W., Yung, Y., Ip, W.-H., Schwenn, R., Rosenbauer, H., Shelley, E., Balsiger, H., Geiss, J. 187, 502

Detection of parent molecules in comet P/Halley from the IKS-Vega experiment

Moroz, V.I., Combes, M., Bibring, J.P., Coron, N., Crovisier, J., Encrenaz, T., Crifo, J.F., Sanko, N., Grigoryev, A.V., Bockelée-Morvan, D., Gispert, R., Nikolsky, Y.V., Emerich, C., Lamarre, J.M., Rocard, F., Krasnopolsky, V.A., Owen, T. 187, 513

Detection of a new emission band at 2.8 µm in comet P/Halley

Tokunaga, A.T., Nagata, T., Smith, R.G. 187, 519

Photometry of P/Halley (1982i)

Sterken, C., Manfroid, J., Arpigny, C. 187, 523

Polarimetry of comet P/Halley: continuum versus molecular bands

Le Borgne, J.F., Leroy, J.L., Arnaud, J. 187, 526

Photometric observations of comet P/Giacobini-Zinner Schleicher, D.G., Millis, R.L., Birch, P.V. 187, 531

Circular polarization near the nucleus of comet P/Halley Metz, K., Haefner, R. 187, 539

Spectrophotometry of comet P/Halley. I. Flux, column density and emission gradients within the coma in the emission bands and the continuum

Sivaraman, K.R., Babu, G.S.D., Shylaja, B.S., Rajamohan, R. 187, 543

Spectrophotometry of comet P/Halley at wavelengths 275-710 nm from Vega-2

Moreels, G., Clairemidi, J., Parisot, J.P., Zucconi, J.M., Bertaux, J.L., Blamont, J.E., Hersé, M., Krasnopolsky, V.A., Moroz, V.I., Krysko, A.A., Tkachuk, A.Y., Gogoshev, M., Gogosheva, T., Werner, R., Spasov, S. 187, 551

The visual brightness behavior of P/Halley during 1981–1987 Green, D.W.E., Morris, C.S. 187, 560

The spectral behavior of P/Halley at large heliocentric distance in light of the Giotto/Vega results

Belton, M.J.S., Spinrad, H., Wehinger, P.A., Wyckoff, S., Yeomans, D.K. 187, 569

Periodicities in the light curve of P/Halley and the rotation of its nucleus

Festou, M.C., Drossart, P., Lecacheux, J., Encrenaz, T., Puel, F., Kohl-Moreira, J.L. 187, 575

Photometry of comet P/Halley at near post-perihelion phases Neckel, T., Münch, G. 187, 581

Observations of comet P/Halley at minimum phase angle Meech, K.J., Jewitt, D.C. 187, 585 Chinese observations of comet P/Halley in China and abroad Gong (Kung), S.M., Wu, G.J., Chen, P.S., Zhang, X.F., Sun, S.S. 187, 594

Thermal infrared imaging of comet P/Halley
Campins, H., Telesco, C.M., Decher, R., Ramsey, B.D. 187,
601

Low resolution mapping of comet P/Halley in the near-infrared Lázaro, C., Garzón, F., Arévalo, M.J. 187, 605

Infrared monitoring of comet P/Halley

Lorenzetti, D., Moneti, A., Stanga, R., Strafella, F. 187, 609

Airborne and groundbased spectrophotometry of comet P/Halley from 5–13 µm

Bregman, J.D., Campins, H., Witteborn, F.C., Wooden, D.H., Rank, D.M., Allamandola, L.J., Cohen, M., Tielens, A.G.G.M. 187, 616

The near-infrared polarization and color of comet P/Halley Brooke, T.Y., Knacke, R.F., Joyce, R.R. 187, 621

The 3.2-3.6 µm emission features in comet P/Halley: spectral identifications and similarities

Knacke, R.F., Brooke, T.Y., Joyce, R.R. 187, 625

Airborne spectrophotometry of P/Halley from 16 to 30 μm Herter, T., Campins, H., Gull, G.E. 187, 629

Photometry of comet P/Halley from 40 to 160 µm Campins, H., Joy, M., Harvey, P.M., Lester, D.F., Ellis, H.B., Jr. 187, 632

Airborne spectrophotometry of P/Halley from 20 to 65 μm Glaccum, W., Moseley, S.H., Campins, H., Loewenstein, R.F. 187, 635

Comet P/Halley near-nucleus phenomena in 1986

Larson, S., Sekanina, Z., Levy, D., Tapia, S., Senay, M. 187,

The sunward spike of Halley's comet Sekanina, Z., Larson, S.M., Emerson, G., Helin, E.F., Schmidt, R.E. 187, 645

Complex refractive index of grain material deduced from the visible polarimetry of comet P/Halley

Mukai, T., Mukai, S., Kikuchi, S. 187, 650

Infrared emission from P/Halley's dust coma during March 1986

Hanner, M.S., Tokunaga, A.T., Golisch, W.F., Griep, D.M., Kaminski, C.D. 187, 653

The dust tail of comet P/Halley in April 1986 Lamy, P.L., Pedersen, H., Vio, R. 187, 661

Albedo maps of comets P/Halley and P/Giacobini-Zinner Hammel, H.B., Telesco, C.M., Campins, H., Decher, R., Storrs, A.D., Cruikshank, D.P. 187, 665

Polarimetry of grains in the coma of P/Halley. I. Observations Dollfus, A., Suchail, J.-L. 187, 669

Polarimetry of comet P/Halley

Kikuchi, S., Mikami, Y., Mukai, T., Mukai, S., Hough, J.H. 187, 689

Calibration of the DIDSY-IPM dust detector and application to other impact ionisation detectors on board the P/Halley probes

Göller, J.R., Grün, E., Maas, D. 187, 693

Dust in comet P/Halley from Vega observations

Mazets, E.P., Sagdeev, R.Z., Aptekar, R.L., Golenetskii, S.V., Guryan, Yu, A., Dyachkov, A.V., Ilyinskii, V.N., Panov, V.N., Petrov, G.G., Savvin, A.V., Sokolov, I.A., Frederiks, D.D., Khavenson, N.G., Shapiro, V.D., Shevchenko, V.I. 187, 699

Properties of dust in comet P/Halley measured by the Vega-2 three-channel spectrometer

Krasnopolsky, V.A., Moroz, V.I., Krysko, A.A., Tkachuk, A.Y., Moreels, G., Clairemidi, J., Parisot, J.P., Gogoshev, M., Gogosheva, T. 187, 707

Dust distribution of comet P/Halley's inner coma determined from the Giotto Radio-Science Experiment

Edenhofer, P., Bird, M.K., Brenkle, J.P., Buschert, H., Kursinski, E.R., Mottinger, N.A., Porsche, H., Stelzried, C.T., Volland, H. 187, 712

The dust distribution within the inner coma of comet P/Halley (1982i): encounter by Giotto's impact detectors

McDonnell, J.A.M., Alexander, W.M., Burton, W.M., Bussoletti, E., Evans, G.C., Evans, S.T., Firth, J.G., Grard, R.J.L., Green, S.F., Grun, E., Hanner, M.S., Hughes, D.W., Igenbergs, E., Kissel, J., Kuczera, H., Lindblad, B.A., Langevin, Y., Mandeville, J.-C., Nappo, S., Pankiewicz, G.S.A., Perry, C.H., Schwehm, G.H., Sekanina, Z., Stevenson, T.J., Turner, R.F., Weishaupt, U., Wallis, M.K., Zarnecki, J.C. 187, 719

The dust coma of comet P/Halley: measurements on the Vega-1 and Vega-2 spacecraft

Simpson, J.A., Rabinowitz, D., Tuzzolino, A.J., Ksanfomality, L.V., Sagdeev, R.Z. 187, 742

Spatial and mass distribution of low-mass dust particles ($m < 10^{-10}$ g) in comet P/Halley's coma

Vaisberg, O.L., Smirnov, V., Omelchenko, A., Gorn, L., Iovlev, M. 187, 753

First statistical analysis of 5000 mass spectra of cometary grains obtained by PUMA 1 (Vega-1) and PIA (Giotto) impact ionization mass spectrometers in the compressed modes

Langevin, Y., Kissel, J., Bertaux, J.-L., Chassefière, E. 187, 761

Comet P/Halley: implications of the mass distribution function for the photopolarimetric properties of the dust coma *Lamy, P.L., Grün, E., Perrin, J.M.* 187, 767

An attempt to evaluate the structure of cometary dust particles Smirnov, V.N., Vaisberg, O.L., Anisimov, S. 187, 774

Systematics of the "CHON" and other light-element particle populations in comet P/Halley

Clark, B.C., Mason, L.W., Kissel, J. 187, 779

Secondary electron emission induced by gas and dust impacts on Giotto, Vega-1 and Vega-2 in the environment of comet P/Halley

Grard, R.J.L., McDonnell, J.A.M., Grün, E., Gringauz, K.I. 187, 785

Dust environment of comet P/Halley: a review Sekanina, Z. 187, 789

Charging of dust particles in comets and in interplanetary space Notni, P., Tiersch, H. 187, 796

Evaporating grains in P/Halley's coma

Wallis, M.K., Rabilizirov, R., Wickramasinghe, N.C. 187, 801

Comet P/Halley's nucleus and its activity

Keller, H.U., Delamere, W.A., Huebner, W.F., Reitsema, H.J., Schmidt, H.U., Whipple, F.L., Wilhelm, K., Curdt, W., Kramm, R., Thomas, N., Arpigny, C., Barbieri, C., Bonnet, R.M., Cazes, S., Coradini, M., Cosmovici, C.B., Hughes, D.W., Jamar, C., Malaise, D., Schmidt, K., Schmidt, W.K.H., Seige, P. 187, 807

Electrostatic charging and fragmentation of dust near P/Giacobini-Zinner and P/Halley

Boehnhardt, H., Fechtig, H. 187, 824

Evolution of comet P/Halley in early March 1986 as observed from Vega pictures

Abergel, A., Bertaux, J.L. 187, 829

The spatial distribution of dust jets seen during the Vega-2 flyby Sagdeev, R.Z., Smith, B., Szegö, K., Larson, S., Tóth, I., Merényi, E., Avanesov, G.A., Krasikov, V.A., Shamis, V.A., Tarnapolski, V.I. 187, 835

Temperature and size of the nucleus of comet P/Halley deduced from IKS infrared Vega-1 measurements

Emerich, C., Lamarre, J.M., Moroz, V.I., Combes, M., Sanko, N.F., Nikolsky, Y.V., Rocard, F., Gispert, R., Coron, N., Bibring, J.P., Encrenaz, T., Crovisier, J. 187, 839

Fine dust structures in the emission of comet P/Halley observed by the Halley Multicolour Camera on board Giotto

Thomas, N., Keller, H.U. 187, 843

Detailed analysis of a surface feature on comet P/Halley Schwarz, G., Craubner, H., Delamere, A., Göbel, M., Gonano, M., Huebner, W.F., Keller, H.U., Kramm, R., Mikusch, E., Reitsema, H., Whipple, F.L., Wilhelm, K. 187, 847

The cometary nucleus: current concepts

Whipple, F.L. 187, 852

Composition measurements and the history of cometary matter Geiss, J. 187, 859

Modeling P/Halley before and after the encounters Divine, N., Newburn, R.L., Jr. 187, 867

Post-perihelion brightening of comet P/Halley: Springtime for Halley

Weissman, P.R. 187, 873

Comet P/Halley dust characteristics: a comparison between Orionid and Eta Aquarid meteor observations and those from the flyby spacecraft

Hughes, D.W. 187, 879

Radiation formation of a non-volatile comet crust

Johnson, R.E., Cooper, J.F., Lanzerotti, L.J., Strazzulla, G.

Astrometric positions of comet P/Halley

Barbieri, C., Kranjc, A., Scardia, M., Cremonese, G. 187, 893 A new approach to investigations of the long-term motion of comet P/Halley

Sitarski, G., Ziolkowski, K. 187, 896

High-order librations of Halley-type comets

Carusi, A., Kresák, L., Perozzi, E., Valsecchi, G.B. 187, 899

Dormant phases in the aging of periodic comets

Kresák, L. 187, 906

The dynamical lifetime of comet P/Halley

Olsson-Steel, D.I. 187, 909

Galactic tides affect the Oort cloud: an observational confirma-

Delsemme, A.H. 187, 913

The P/Halley meteor showers in 1985-1986

Hajduková, M., Hajduk, A., Cevolani, G., Formiggini, C. 187, 919

The spectra of meteors from comet P/Halley

Halliday, I. 187, 921

Meteoroids from comet P/Halley. The comet's mass production and age

Hajduk, A. 187, 925

The 1985 return of the Giacobinid meteor stream Lindblad, B.A. 187, 928

The meteor stream associated with comet P/Grigg-Skjellerup Lindblad, B.A. 187, 931

Meteor contribution by short-period comets Štohl, J. 187, 933 Associations between ancient comets and meteor showers Kresáková, M. 187, 935

Nongravitational motion of comet P/Kopff during 1958-1983

Rickman, H., Sitarski, G., Todorovic-Juchnievicz, B. 188, 206 Catalogue of astrometric observations of Comet P/Halley at its apparition 1909–1911

Röser, S. 188, 268; 71, 363

A catalog of precise reference star positions for the astrometry network of the international comet P/Halley campaign de Vegt, C., Zacharias, N. 188, 272; 71, 525

Convection

An implicit stellar evolution code, with an application to main-sequence evolution

van der Linden, T.J. 171, 87

Effects of cosmions in the Sun and in globular cluster stars Renzini, A. 171, 121

The Alfvén-gravity spectrum of an incompressible slab Hermans, D., Goossens, M. 172, 85

Stellar granulation. I. The observability of stellar photospheric convection

Dravins, D. 172, 200

Stellar granulation. II. Stellar photospheric line asymmetries Dravins, D. 172, 211

Grids of evolutionary models of massive stars with mass loss and overshooting. Properties of Wolf-Rayet stars sensitive to overshooting

Maeder, A., Meynet, G. 182, 243

Refined diatomic partition functions. I. Calculational methods and H₂ and CO results

Irwin, A.W. 182, 348

Roxburgh's criterion for convective overshooting

Baker, N.H., Kuhfuß, R. 185, 117

Some embarrassments in current treatments of convective overshooting

Renzini, A. 188, 49

Cosmic background radiation

Role of baryonic density on radiation fluctuation in an ino-dominated universe

Hansel, D., Ramani, A., Pellat, R. 171, 1

H1 observations of galaxies in a catalog of nearby galaxies. II. The motion of the Sun and the Galaxy and the velocity dispersion of "field" galaxies

Richter, O.-G., Tammann, G.A., Huchtmeier, W.K. 171, 33

Polarization of the cosmic background radiation in magnetic Bianchi type-II cosmologies

Fabbri, R., Tamburrano, M. 179, 11

The IRAS cirrus and the diffuse ultraviolet background Jakobsen, P., de Vries, J.S., Paresce, F. 183, 335

Gravitational lensing effect on the fluctuations of the cosmic background radiation

Blanchard, A., Schneider, J. 184, 1

Cosmic rays; see also Sun (the): cosmic rays

Approximate solutions to the cosmic ray transport equation: the maximum entropy method

Hick, P., Stevens, G. 172, 350

A numerical study of steady-state shock acceleration Achterberg, A. 174, 329

Second-order Fermi acceleration and radio spectral index distributions in supernova remnants and bright spiral galaxies *Dröge, W., Lerche, I., Schlickeiser, R.* 178, 252 Cosmic ray gradients in the Outer Galaxy

Mayer, C.J., Richardson, K.M., Rogers, M.J., Szabelski, J., Wolfendale, A.W. 180, 73

Solar modulation of galactic antiprotons

Perko, J.S. 184, 119

Observations of heavy energetic ions far upstream from comet P/

Sanderson, T.R., Wenzel, K.-P., Daly, P.W., Cowley, S.W.H., Hynds, R.J., Richardson, I.G., Smith, E.J., Bame, S.J., Zwickl, R.D. 187, 125

Observation of cosmic ray positrons in the region from 5 to 50 GeV

Golden, R.L., Stephens, S.A., Mauger, B.G., Badhwar, G.D., Daniel, R.R., Horan, S., Lacy, J.L., Zipse, J.E. 188, 145

Cosmogony

The stability of differentially rotating self-gravitating gas clouds. II: Polytropic configurations

Schmitz, F., Ebert, R. 181, 41

A collapse model of the turbulent presolar nebula Tscharnuter, W.M. 188, 55

Cosmology

Role of baryonic density on radiation fluctuation in an ino-dominated universe

Hansel, D., Ramani, A., Pellat, R. 171, 1

Measurement of lithium abundance in dwarf stars of M 67 Spite, F., Spite, M., Peterson, R.C., Chaffee, F.H., Jr. 171, L8

The 189 Os (n, γ) cross section and implications for the duration of stellar nucleosynthesis

Winters, R.R., Macklin, R.L., Hershberger, R.L. 171, 9 A gravitational lens origin for AGN-variability? Consequences of micro-lensing

Schneider, P., Weiss, A. 171, 49

Effects of cosmions in the Sun and in globular cluster stars Renzini, A. 171, 121

Lithium abundance in two extreme high-velocity metal-poor halo dwarfs

Spite, M., Spite, F., Peterson, R.C., Chaffee, F.H., Jr. 172, L9

The lithium abundance in the extremely metal-deficient dwarf G

Rebolo, R., Beckman, J., Molaro, P. 172, L17

Photinos and primordial nucleosynthesis

Salati, P., Delbourgo-Salvador, P., Audouze, J. 173, 1

Detection of features in the large-scale galaxy distribution from wide-angle samples of objective-prism spectra

Parker, Q.A., Beard, S.M., MacGillivray, H.T. 173, L5

How far can observable relations determine a Robertson-Walker metric?

Ehlers, J., Rindler, W. 174, 1

Neutrino flow dominance during the cosmological quark-hadron transition

Bonometto, S.A., Pantano, O. 176, L9

Optical emission-line activity and radio continuum power in the nuclei of spiral galaxies

Giuricin, G., Mardirossian, F., Mezzetti, M. 176, 175

The effect of pressure in the Local Supercluster and the anisotropy of the Hubble flow

Goicoechea, L.J., Sanz, J.L. 177, 1

Light element production in Barker's cosmologies Domínguez-Tenreiro, R., Yepes, G. 177, 5 Observational study of the Hubble diagram Wampler, E.J. 178, 1

A search for diffuse neutral hydrogen in filaments of galaxies Altschuler, D.R., Davis, M.M., Giovanardi, C. 178, 16

Ooty lunar occultation survey of radio sources

Singal, A.K. 178, 324; 69, 91

De Sitter-type of cosmological model in a five-dimensional theory of gravity with variable rest mass

Chatterjee, S. 179, 1

Cosmological constraints of the "inos" composing galactic halos Ruffini, R., Song, D.J. 179, 3

Polarization of the cosmic background radiation in magnetic Bianchi type-II cosmologies

Fabbri, R., Tamburrano, M. 179, 11

Primordial nucleosynthesis in the Brans-Dicke theory with a variable cosmological term

Arai, K., Hashimoto, M., Fukui, T. 179, 17

Comprehensive study of the QSO-galaxy pair 1327-206 and the extent of low ionization galactic haloes

Bergeron, J., D'Odorico, S., Kunth, D. 180, 1

Biased galaxies and non-linear correlations

Schaeffer, R. 180, L5

A survey for H1 in voids

. Hulsbosch, A.N.M. 180, 280; 69, 439

Cluster population incompleteness bias and the value of H_0 from the Tully-Fischer B_0^0 relation

Bottinelli, L., Fouqué, P., Gouguenheim, L., Paturel, G., Teerikorpi, P. 181, 1

Scaling laws for the probability of holes in the galaxy distribution

Schaeffer, R. 181, L23

Statistical gravitational lensing: influence of compact objects on the number counts of quasars

Schneider, P. 183, 189

A study of the elongation of Abell clusters. I. A sample of 37 clusters studied earlier by Binggeli and Struble & Peebles

Rhee, G.F.R.N., Katgert, P. 183, 217
Upper limit to the boron abundance in the Population II star HD

140283

Molaro, P. 183, 241

Gravitational lensing effect on the fluctuations of the cosmic background radiation

Blanchard, A., Schneider, J. 184, 1

Fragmenting the universe. I. Statistics of two-dimensional Voronoi foams

Icke, V., van de Weygaert, R. 184, 16

Comments on smoothing cosmologies

Hemmerich, A. 185, 1

A model of spectrophotometric evolution for high-redshift galaxies

Guiderdoni, B., Rocca-Volmerange, B. 186, 1

Magnitude-redshift test: cosmological inhomogeneity effects Goicoechea, L.J., Martin-Mirones, J.M. 186, 22

Data analysis; see also Image processing

Statistical detection of disturbing effects in observations. An example: visual observations with astrolabes (Text in French)

Bougeard, M. 173, 191

The final COS-B database: in-flight calibration of sensitivity and instrumental background behaviour

Strong, A.W., Bloemen, J.B.G.M., Lebrun, F., Hermsen, W., Mayer-Hasselwander, H.A., Buccheri, R. 173, 418; 67, 283

Determination of the mean lifetime of solar features from photographic observations

Alissandrakis, C.E., Dialetis, D., Tsiropoula, G. 174, 275

0.6 GHz mapping of extended radio galaxies. I. Edge-brightened double sources

Jägers, W.J. 175, 357; 67, 395

An annotated bibliographical catalogue of multivariate statistical methods and of their astronomical applications (magnetic tape) Murtagh, F., Heck, A. 176, 191; 68, 113

Systematic differences between "classical" radial velocities Brosche, P., Frantzen, H.P. 176, 367

A statistical method to derive the true distribution of an astronomical parameter some values of which are known only by limits

Chamaraux, P. 177, 326

A new statistical method to derive radial velocity shifts from stellar spectra

de Loore, C., Monderen, P., Rousseeuw, P. 178, 307

Cepheids in the Magellanic Clouds. I. Fourier decomposition of LMC Cepheid light curves

Andreasen, G.K., Petersen, J.O. 180, 129

Searches for pulsed emission: improved determination of period and amplitude from epoch folding for sinusoidal signals

Leahy, D.A. 180, 275

A further study of the relation of the radio

A further study of the relation of the radio-far-infrared in galaxies. I. Observations and data processing

Wunderlich, E., Klein, U., Wielebinski, R. 180, 281; 69, 487 Aspects of interplanetary plasma turbulence

Celnikier, L.M., Muschietti, L., Goldman, M.V. 181, 138 HD 37819 \equiv V 356 Aur, a double-mode δ Sct star with an unusual period ratio

Poretti, E., Mantegazza, L., Antonello, E. 181, 273

Statistical problems about the use of the ordinary least-squares method in astrometry. Application to the Paris-astrolable data *Bougeard, M.L.* 183, 156

A direct surface smoothing procedure for Fourier image reconstruction in radiophysics

Koch, I., Anderssen, R.S. 183, 170

A faint object processing software: description and testing Infante, L. 183, 177

Cepheids in the Magellanic Clouds. II. Search for double mode Cepheids in the LMC

Andreasen, G.K. 186, 159

Interstellar clouds: morphological information from projected shapes

David, M., Verschueren, W. 186, 295

Quasi-periodic features and the radial distribution of cometary ions in the cometary plasma region of comet P/Halley

Gringauz, K.I., Verigin, M.I., Richter, A.K., Gombosi, T.I., Szegő, K., Tátrallyay, M., Remizov, A.P., Apáthy, I. 187, 191

Analysis of the electron measurements from the Plasmag-1 experiment on board Vega-2 in the vicinity of comet P/Halley

Gringauz, K.I., Remizov, A.P., Verigin, M.I., Richter, A.K., Tàtrallyay, M., Szegö, K., Klimenko, I.N., Apathy, I., Gombosi, T.I., Szemerey, T. 187, 287

Fine dust structures in the emission of comet P/Halley observed by the Halley Multicolour Camera on board Giotto

Thomas, N., Keller, H.U. 187, 843

Detailed analysis of a surface feature on comet P/Halley Schwarz, G., Craubner, H., Delamere, A., Göbel, M., Gonano, M., Huebner, W.F., Keller, H.U., Kramm, R., Mikusch, E.,

Reitsema, H., Whipple, F.L., Wilhelm, K. 187, 847

Weights of star positions in meridian circle catalogues Bien, R. 188, 225

A three-dimensional extended Kolmogorov-Smirnov test as a useful tool in astronomy

Gosset, E. 188, 258

Instrumental effects and the Strömgren photometric system Manfroid, J., Sterken, C. 188, 272; 71, 539

Dense matter

Phase transitions in stellar cores. II. Equilibrium configurations in general relativity

Zdunik, J.L., Haensel, P., Schaeffer, R. 172, 95

Mean free paths of non-degenerate neutrinos in neutron star matter

Haensel, P., Jerzak, A.J. 179, 127

The incompressibility of hot, neutron-rich nuclear matter Vinas, X., Barranco, M., Treiner, J., Stringari, S. 182, L34

Distances, distance scale

H_I observations of galaxies in a catalog of nearby galaxies. II. The motion of the Sun and the Galaxy and the velocity dispersion of "field" galaxies

Richter, O.-G., Tammann, G.A., Huchtmeier, W.K. 171, 33 Eight-colour photometry of stars associated with selected Sharpless H II regions at $l^{II} \simeq 190^{\circ}$: S 252, S 254, S 255, S 257, and S 261

Chavarria-K, C., de Lara, E., Hasse, I. 171, 216

The calibration problem. I. Estimation of mean absolute magnitude using trigonometric parallaxes

Smith H., Jr. 171, 336

The calibration problem. II. Trigonometric parallaxes selected according to proper motion and the problem of statistical parallaxes

Smith H., Jr. 171, 342

Cluster population incompleteness bias and distances from the Tully-Fisher relation: theory and numerical examples

Teerikorpi, P. 173, 39

Determination of the radii of Cepheids. IV. Dimensions of HV 879, HV 899, HV 909, HV 2257, HV 2338, HV 2827 and the distance of the Large Magellanic Cloud (Text in French)

Imbert, M. 175, 30

Kinematics of young open clusters and the rotation curve of our Galaxy

Hron, J. 176, 34

A compilation of distances to cataclysmic variable stars Berriman, G. 176, 189; 68, 41

Two senile nearby planetary nebulae and the local PN popula-

Ishida, K., Weinberger, R. 178, 227

Cluster population incompleteness bias and the value of H_0 from the Tully-Fischer B_0^0 relation

Bottinelli, L., Fouqué, P., Gouguenheim, L., Paturel, G., Teerikorpi, P. 181, 1

The calibration problem. III. First-order solution for mean absolute magnitude and dispersion

Smith, H., Jr. 181, 391

Systematic and external errors of trigonometric parallaxes Breakiron, L.A. 183, 185; 70, 157

Photometry and spectroscopy of stars in the region of a highly reddened cluster in Ara

Westerlund, B.E. 185, 354; 70, 311

Neutral hydrogen absorption measurements of ten pulsars and the electron density in the galactic plane

Weisberg, J.M., Rankin, J.M., Boriakoff, V. 186, 307

Orbital elements of 26 double stars

Baize, P. 186, 365; 71, 177

The calibration problem. IV. The Lutz-Kelker correction Smith, H., Jr. 188, 233

Properties of planetary nebulae. I. Nebular parameters and distance scales

Gathier, R. 188, 266; 71, 245

Double stars; see Stars: binaries

Dust; see Interstellar medium: dust; Interplanetary medium

Earth: atmosphere

Optical long-baseline interferometry and aperture synthesis by speckle masking

Reinheimer, T., Weigelt, G. 176, L17

The fate of the Earth in the red giant envelope of the Sun Goldstein, J. 178, 283

Could there be terrestrial signatures of the EUV pulse from Supernova 1987 A?

Ögelman, H., Böhringer, H., Buchert, S., Çakır, S., LaBelle, J., Treumann, R.A. 183, L.27

Observations of anomalous refraction at radio wavelengths Altenhoff, W.J., Baars, J.W.M., Downes, D., Wink, J.E. 184, 381

Day-time seeing statistics at Sacramento Peak Observatory Brandt, P.N., Mauter, H.A., Smartt, R. 188, 163

Earth: general

The fate of the Earth in the red giant envelope of the Sun Goldstein, J. 178, 283

Eclipses

Pluto eclipses of and by Charon must be unequal Mulholland, J.D., Gustafson, B.A.S. 171, L5

Results of interferometric observations of the F-corona radial velocity field between 3 and 7 solar radii

Shcheglov, P.V., Shestakova, L.I., Ajmanov, A.K. 173, 383
Galilean satellite evolution: observational evidence for secular

changes in mean motions Lieske, J.H. 176, 146

Editorials

Contopoulos, G. 183, 0

Praderie, F., Grewing, G. 187, XIX

Elementary particles

Stellar evolution with turbulent diffusion mixing. VI. The solar model, surface ⁷Li and ³He abundances, solar neutrinos and oscillations

Lebreton, Y., Maeder, A. 175, 99

Neutrino-antineutrino annihilation around a collapsar Berezinsky, V.S., Prilutsky, O.F. 175, 309

Neutrino flow dominance during the cosmological quark-hadron transition

Bonometto, S.A., Pantano, O. 176, L9

Evidence for a finite electron neutrino rest mass from SN 1987

Hillebrandt, W., Höflich, P., Kafka, P., Müller, E., Schmidt, H.U., Truran, J.W., Wampler, J. 177, L41

Rotational curves of galaxies and neutrino halos Paganini, R., Straumann, N., Wyler, D. 177, 84

Cosmological constraints of the "inos" composing galactic halos Ruffini, R., Song, D.J. 179, 3 Indications for black hole formation from neutrino observations in SN 1987 A

Hillebrandt, W., Höflich, P., Kafka, P., Müller, E., Schmidt, H.U., Truran, J.W. 180, L20

The harmonic structure of the February 23.316 neutrino burst from the Supernova 1987 A

Ögelman, H., Buccheri, R. 180, L23

Solar modulation of galactic antiprotons

Perko, J.S. 184, 119

The modulation of neutrinos from SN 1987 A during stellar collapse

de Jager, O.C. 185, L13

The neutrino burst from Supernova 1987 A: a search for periodicities

Fischer, D. 186, L11

Ephemerides

Galilean satellite evolution: observational evidence for secular changes in mean motions

Lieske, J.H. 176, 146

A catalogue of occultation observations of the Galilean satellites of Jupiter

Fairhead, L., Arlot, J.-E., Jannot, Y., Thuillot, W. 176, 190; 68, 81

Equatorial coordinates of Uranus obtained with the astrolabe at Santiago

Noël, F. 176, 194; 68, 219

An investigation of the motions of the node and perihelion of Mercury

Rana, N.C. 181, 195

GUST 86. An analytical ephemeris of the Uranian satellites Laskar, J., Jacobson, R.A. 188, 212

Errata

Erratum: Sur la position "optique" et "radio" du système α Scorpii (Optical and radio positions of α Scorpii)

Clauzet, L.B.F., Débarbat, S., Chollet, F. 173, 415

Erratum: The relation between carbon monoxide emission and visual extinction in the local Perseus dark clouds

Bachiller, R., Cernicharo, J. 174, 368

Erratum: Influence of abundances on mass-loss determination for WC stars

van der Hucht, K.A., Cassinelli, J.P., Williams, P.M. 175, 356 Erratum: The "Bright Stars" with UBV-colors close to those of the Sun

Neckel, H. 176, 372

Erratum: Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 185, 358; 70, 141

Erratum: Anomalous Zeeman effect: moments and expansion coefficients

Mathys, G., Stenflo, J.O. 185, 358; 70, 142

Erratum: The $-33^{\circ} \le \delta \le -17^{\circ}$ zone: probing SRC J film copies for planetary nebulae

Saurer, W., Weinberger, R. 185, 358; 70, 531

Erratum: Hard X-ray observations of the quasar 3C 273

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V., Venkatesan, D. 186, L20

Erratum: The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 186, 359

Erratum: A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R. 186, 360

Erratum: List of radial velocities of 258 stars near Alpha Persei Fehrenbach, C., Burnage, R., Figuière, J., Traverse, G., Agniel, C. 186, 366; 71, 185

Erratum: Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 188, 269; 71, 411

Fundamental stars and other objects

Santiago declination catalogue. A declination catalogue of 412 FK4 stars (equinox 1950.0)

Carrasco, G, Loyola, P. 173, 214; 67, 1

Results of observations made in Paris with the astrolabe (Text in French)

Chollet, F., Débarbat, S., Golbasi, O., Hascoët, J.-C., Lam, S.K., Lehman, M., Mangombi dei Ilonga, J., Texier, P. 173, 419: 67, 297

Optical position of Alpha Scorpii A

Noël, F. 177, 310

Catalogues of declinations and proper motions of 36 Belgrade zenith stars

Teleki, G., Grujić, R. 177, 313

UBVRI photometry of FKSZ stars. I

Carrasco, G., Loyola. P. 185, 355; 70, 369

GALAXY and the Galaxy. The RGO selected area proper motion survey. I. Photometric sequences in selected areas

Reid, N., King, D.L., Argyle, R.W. 188, 269; 71, 397

Galaxies: active; see also Galaxies, Seyfert

The active galaxy PKS 0521-36 and its optical jet Cayatte, V., Sol, H. 171, 25

Circumnuclear star formation in the central region of the barred spiral galaxy NGC 1097

Hummel, E., van der Hulst, J.M., Keel, W.C. 172, 32

EVN and MERLIN observations of five superluminal radio sources

Pilbratt, G., Booth, R.S., Porcas, R.W. 173, 12

Multifrequency observations of low frequency variable sources: a statistical analysis

Padrielli, L., Aller, M.F., Aller, H.D., Fanti, C., Fanti, R., Ficarra, A., Gregorini, L., Mantovani, F., Nicolson, G. 173, 215; 67, 63

Strong structural variability in the lobe-dominated radio galaxy 3 C 111

Götz, M.M.A., Alef, W., Preuss, E., Kellermann, K.I. 176, 171

Fossil nebulae in the context of active galaxies. I. Time evolution of a single cloud

Binette, L., Robinson, A. 177, 11

UBVRI photometry of active galaxies. I. Observations Hamuy, M., Maza, J. 177, 350; 68, 383

The core of the narrow line region of NGC 4151 Schulz, H. 178, 7

Extended emission line regions in nearby Seyfert galaxies. I. NGC 2992

Colina, L., Fricke, K.J., Kollatschny, W., Perryman, M.A.C. 178, 51

Line and continuum radiation from the outer region of accretion discs in active galactic nuclei. I. Preliminary considerations *Collin-Souffrin, S.* **179**, 60

Stabilization and consequences of relativistic electron bumps in extragalactic radio sources

Lesch, H., Schlickeiser, R. 179, 93

FIR galaxies with compact radio cores

Chini, R., Biermann, P.L., Kreysa, E., Kühr, H., Mezger, P.G., Schmidt, J., Witzel, A., Zensus, J.A. 181, 237

Lines of high excitation in NGC 4151: new measurements of [Fe x] and [Fe xɪv]

Pelat, D., Alloin, D., Bica, E. 182, 9

1300 µm detection of the radio-quiet quasar 13349 + 2438 Chini, R., Kreysa, E., Salter, C.J. 182, L63

Flux density measurements of faint radio sources at 2.7 and 4.75 GHz

Forkert, T., Altschuler, D.R. 182, 361; 70, 77

Warm IRAS sources. I. A catalogue of AGN candidates from the point source catalog

de Grijp, M.H.K., Miley, G.K., Lub, J. 182, 362; 70, 95

The Seyfert 2 galaxy IC 184 and its surrounding group Kollatschny, W., Fricke, K.J. 183, 9

The influence of relativistic electrons on a photoionized gaseous cloud

Gruenwald, R.B., Viegas-Aldrovandi, S.M. 183, 185; 70, 143
The inverse Compton test for a large sample of compact radio

sources
Biermann, P.L., Kühr, H., Snyder, W.A., Zensus, J.A. 185, 9

Rotationally excited OH in megamaser galaxies Henkel, C., Güsten, R., Baan, W.A. 185, 14

Composite models for the narrow emission line region of active galactic nuclei. V. The line profiles

Contini, M., Viegas-Aldrovandi, S.M. 185, 39

The effects of interactions on spiral galaxies. III. A radio continuum survey of galactic nuclei at 1.49 GHz

Hummel, E., van der Hulst, J.M., Keel, W.C., Kennicutt, R.C., Jr. 185, 358; 70, 517

Extended emission line regions in nearby Seyfert galaxies. II. NGC 4388

Colina, L., Fricke, K.J., Kollatschny, W., Perryman, M.A.C. 186, 39

Broad emission line profiles in Seyfert-1 galaxies. I. Evidence for a disk and a wind in Mkn 335

van Groningen, E. 186, 103

0.6 GHz mapping of extended radio galaxies. II. Edge-darkened double sources

Jägers, W.J. 186, 363; 71, 75

Morphology of extended emission-line regions associated with radio galaxies

Hansen, L., Nørgaard-Nielsen, H.U., Jørgensen, H.E. 188, 271; 71, 465

0.6 GHz mapping of extended radio galaxies. III. 3C 66B, NGC 1265, 3C 129, DA 240, 3C 236, 4C 48.29, IC 708 & IC 711, 4CT 51.29.1, 3C 310, Abell 2256, 3C 402 and 3C 465

Jägers, W.J. 188, 275; 71, 603

Galaxies: barred

Circumnuclear star formation in the central region of the barred spiral galaxy NGC 1097

Hummel, E., van der Hulst, J.M., Keel, W.C. 172, 32

The central region of NGC 613. Evidence for an accelerated collimated outflow

Hummel, E., Jörsäter, S., Lindblad, P.O., Sandqvist, A. 172, 51

Complex instability around the rotation axis of stellar systems. I. Galactic potentials

Martinet, L., Pfenniger, D. 173, 81

Box-shaped galaxies: a complete list

de Souza, R.E., dos Anjos, S. 185, 357; 70, 465

Galaxies: clusters of, see Clusters: of galaxies

Galaxies: compact

Some inferences on chemical evolution from a study of irregular and blue compact galaxies

Vigroux, L., Stasińska, G., Comte, G. 172, 15

Photometric and spectroscopic investigation of three close companions of M 87

Prugniel, P., Nieto, J.-L., Simien, F. 173, 49

Photometry of Zwicky compact galaxies

Moles, M., García-Pelayo, J.M., del Río, G., Lahulla, F. 186, 77

A morphological survey of emission line galaxies Tarrab, I. 188, 271; 71, 449

Galaxies: dwarf elliptical

A continuum survey of dwarf galaxies at 1400 MHz, II Altschuler, D.R., Giovanardi, C., Pantoja, C.A. 177, 22

Red stars in the Fornax dwarf galaxy

Westerlund, B.E., Edvardsson, B., Lundgren, K. 178, 41

Spheroidal systems as a one-parameter family of mass at their birth

Yoshii, Y., Arimoto, N. 188, 13

Galaxies: elliptical

Limits on the cool gas content of NGC 1275 and M 87 Jaffe, W. 171, 378

Chemical and photometric properties of a galactic wind model for elliptical galaxies

Arimoto, N., Yoshii, Y. 173, 23

Photometric and spectroscopic investigation of three close companions of M 87

Prugniel, P., Nieto, J.-L., Simien, F. 173, 49

Complex instability around the rotation axis of stellar systems. I. Galactic potentials

Martinet, L., Pfenniger, D. 173, 81

A catalogue of early-type galaxies with emission lines Bettoni, D., Buson, L.M. 173, 420; 67, 341

Shell generation in galaxies

Huang, S-N., Stewart, P. 174, 13

A dust lane in the elliptical galaxy NGC 4261 = 3 C 270 Möllenhoff, C., Bender, R. 174, 63

Star formation in nuclei of S0/E galaxies

Rocca-Volmerange, B., Guiderdoni, B. 175, 15

The interpretation of the UV light of elliptical galaxies Kjærgaard, P. 176, 210

Radio activity and the shape of elliptical galaxies Bender, R., Döbereiner, S., Möllenhoff, C. 177, L53

Morphological analysis of massive early-type galaxies in the Virgo Cluster

Bender, R., Möllenhoff, C. 177, 71

A statistical method to derive the true distribution of an astronomical parameter some values of which are known only by limits

Chamaraux, P. 177, 326

Complex instability around the rotation axis of stellar systems. II. Rotating oscillators

Pfenniger, D. 180, 79

The metallicity versus luminosity relationship for early-type galaxies

Bica, E., Alloin, D. 181, 270

The evolution of clumpy gas in young elliptical galaxies

Kunze, R., Loose, H.-H., Yorke, H.W. 182, 1

A study of the elongation of Abell clusters. I. A sample of 37 clusters studied earlier by Binggeli and Struble & Peebles *Rhee, G.F.R.N., Katgert, P.* **183**, 217

Dynamical friction and shells around elliptical galaxies

Dupraz, C., Combes, F. 185, L1

Chemical evolution of elliptical galaxies

Matteucci, F., Tornambè, A. 185, 51

The kinematical structure of the extended emission-line region of the early-type Seyfert-galaxy Mrk 3

Wagner, S.J. 185, 77

An interpretation of the line-strength indices in old stellar populations using an evolutionary synthesis approach

Aragón, A., Gorgas, J., Rego, M. 185, 97

A model of spectrophotometric evolution for high-redshift galaxies

Guiderdoni, B., Rocca-Volmerange, B. 186, 1

Origin and evolution of compact elliptical galaxies

Nieto, J.-L., Prugniel, P. 186, 30

Spheroidal systems as a one-parameter family of mass at their birth

Yoshii, Y., Arimoto, N. 188, 13

Galaxies: evolution of

Some inferences on chemical evolution from a study of irregular and blue compact galaxies

Vigroux, L., Stasińska, G., Comte, G. 172, 15

Evolution of spiral galaxies in the Virgo cluster. II. Evidence for a threshold in star formation processes

Guiderdoni, B. 172, 27

Chemical and photometric properties of a galactic wind model for elliptical galaxies

Arimoto, N., Yoshii, Y. 173, 23

Complex instability around the rotation axis of stellar systems. I. Galactic potentials

Martinet, L., Pfenniger, D. 173, 81

How far can observable relations determine a Robertson-Walker metric?

Ehlers, J., Rindler, W. 174, 1

Late-type galaxies. The shapes of the spiral arm filaments (Text in German)

Isserstedt, J., Schindler, R. 175, 23

Far-infrared and optical properties of starburst galaxies Belfort, P., Mochkovitch, R., Dennefeld, M. 176, 1

Radio activity and the shape of elliptical galaxies

Bender, R., Döbereiner, S., Möllenhoff, C. 177, L53

The neutral hydrogen content of red spiral galaxies van der Hulst, J.M., Skillman, E.D., Kennicutt, R.C, Bothun, G.D. 177, 63

Observational study of the Hubble diagram Wampler, E.J. 178, 1

Note on comparative analysis of the H1 content in galaxies Giraud, E. 178, 310

Halo parameters of spiral galaxies

Athanassoula, E., Bosma, A., Papaioannou, S. 179, 23

VLA high resolution observations of weak Leiden-Berkeley Deep-Survey (LBDS) sources

Oort, M.J.A., Katgert, P., Steeman, F.W.M., Windhorst, R.A. 179, 41

The detailed velocity field of the ionized gas in the interacting pair of galaxies NGC 7752-53

Marcelin, M., Lecoarer, E., Boulesteix, J., Georgelin, Y., Monnet, G. 179, 101

Ultraviolet observations and star-formation rate in galaxies Donas, J., Deharveng, J.M., Laget, M., Milliard, B., Huguenin, D. 180, 12

FIR galaxies with compact radio cores

Chini, R., Biermann, P.L., Kreysa, E., Kühr, H., Mezger, P.G., Schmidt, J., Witzel, A., Zensus, J.A. 181, 237

The metallicity versus luminosity relationship for early-type galaxies

Bica, E., Alloin, D. 181, 270

The evolution of clumpy gas in young elliptical galaxies Kunze, R., Loose, H.-H., Yorke, H.W. 182, 1

B and V photometry of two distant galaxy clusters with 6 m telescope plates

Iannicola, G., Kalloghlian, A., Nanni, D., Vignato, A. 182, 189 Analysis of absorption-line spectra in a sample of 164 galactic nuclei

Bica, E., Alloin, D. 183, 188; 70, 281

Chemical evolution of elliptical galaxies Matteucci, F., Tornambè, A. 185, 51

Neutral hydrogen observations of four dwarf irregular galaxies in the Virgo Cluster

Skillman, E.D., Bothun, G.D., Murray, M.A., Warmels, R.H. 185, 61

A model of spectrophotometric evolution for high-redshift galaxies

Guiderdoni, B., Rocca-Volmerange, B. 186, 1

Gas kinematics in the nucleus of NGC 6946 Muñoz-Tuñon, C., Vilchez, J.M. 186, 25

Munoz-Tuñon, C., Vilchez, J.M. 186, 25 Origin and evolution of compact elliptical galaxies

Nieto, J.-L., Prugniel, P. 186, 30

High resolution spectrum of the starburst galaxy Tololo 1924-416 (= ESO 338-IG 04)

Iye, M., Ulrich, M.-H., Peimbert, M. 186, 84

Morphological population and first-ranked galaxy morphology in loose groups of galaxies

Ramella, M., Giuricin, G., Mardirossian, F., Mezzetti, M. 188,

Spheroidal systems as a one-parameter family of mass at their birth

Yoshii, Y., Arimoto, N. 188, 13

Galaxies: formation of

Role of baryonic density on radiation fluctuation in an ino-dominated universe

Hansel, D., Ramani, A., Pellat, R. 171, 1

The radial distribution of surface brightness in galactic disks van der Kruit, P.C. 173, 59

Alignments of galaxies in the Perseus supercluster Vettolani, G., Baiesi Pillastrini, G.C. 175, 9 A study of the elongation of Abell clusters. I. A sample of 37 clusters studied earlier by Binggeli and Struble & Peebles

Rhee, G.F.R.N., Katgert, P. 183, 217

Spheroidal systems as a one-parameter family of mass at their birth

Yoshii, Y., Arimoto, N. 188, 13

Galaxies: general

Tidal triggering of Seyfert galaxies and quasars: occurrence in multiple systems

Byrd, G.G., Sundelius, B., Valtonen, M. 171, 16

The radial distribution of surface brightness in galactic disks van der Kruit, P.C. 173, 59

A catalogue of early-type galaxies with emission lines Bettoni, D., Buson, L.M. 173, 420; 67, 341

Malmquist bias, type effect and dispersion in the Tully-Fisher relation

Giraud, E. 174, 23

A simple imaging procedure for gravitational lenses Schramm, T., Kayser, R. 174, 361

Far-infrared and optical properties of starburst galaxies Belfort, P., Mochkovitch, R., Dennefeld, M. 176, 1

CCD surface photometry of galaxies in the cluster Shapley 1346-30

Daly, P.N., Phillipps, S., Disney, M.J. 176, 188; 68, 33

UBVRI photoelectric photometry of 48 southern galaxies Lauberts, A. 176, 193; 68, 215

The core of the narrow line region of NGC 4151 Schulz, H. 178, 7

The stellar velocity dispersion in the disk of the spiral galaxy NGC 5170

Bottema, R., van der Kruit, P.C., Freeman, K.C. 178, 77
Apparent number density enhancement of quasars near foreground galaxies due to gravitational lensing. I. Amplification cross sections

Schneider, P. 179, 71

Apparent number density enhancement of quasars near foreground galaxies due to gravitational lensing. II. The amplification probability distribution and results

Schneider, P. 179, 80

Biased galaxies and non-linear correlations

Schaeffer, R. 180, L5

A further study of the relation of the radio-far-infrared in galaxies. I. Observations and data processing

Wunderlich, E., Klein, U., Wielebinski, R. 180, 281; 69, 487 Scaling laws for the probability of holes in the galaxy distribution

Schaeffer, R. 181, L23

The galaxian surface density of the nearby universe

Fontanelli, P., Chamaraux, P., Balkowski, C. 181, 217

High-dispersion spectroscopy of the clumpy irregular galaxies Markarian 297 and 325

Taniguchi, Y., Tamura, S. 181, 265

Ultraviolet properties of normal galaxies Stryczyński, J. 182, 362; 70, 115

A faint object processing software: description and testing *Infante*, L. 183, 177

Accurate positions of Zwicky galaxies. II

Santagata, N., Basso, L., Gottardi, M., Palumbo, G.G.C., Vettolani, G. 183, 185; 70, 189

Accurate positions of Zwicky galaxies. III

Santagata, N., Basso, L., Gottardi, M., Palumbo, G.G.C., Vettolani, G., Vigotti, M. 183, 186, 70, 191

A study of the elongation of Abell clusters. I. A sample of 37 clusters studied earlier by Binggeli and Struble & Peebles *Rhee, G.F.R.N., Katgert, P.* **183**, 217

The Perseus supercluster at low galactic latitudes

Hauschildt, M. 184, 43

Optical and near-infrared observations of IRAS galaxies. II

Moorwood, A.F.M., Véron-Cetty, M.-P., Glass, I.S. 184, 63

Standard photometric diameters of galaxies. III. Reduction of the

Standard photometric diameters of galaxies. III. Reduction of the diameters in the ESO-B and SGC catalogues to the standard diameter system at the 25 mag arcsec⁻² brightness level

Paturel, G., Fouqué, P., Lauberts, A., Valentijn, E.A., Corwin, H.G., de Vaucouleurs, G. 184, 86

Spectroscopic survey of the Case blue and emission line galaxies Augarde, R., Figon, P., Kunth, D., Sèvre, F. 185, 4

A model of spectrophotometric evolution for high-redshift galaxies

Guiderdoni, B., Rocca-Volmerange, B. 186, 1 A morphological survey of emission line galaxies Tarrab, I. 188, 271; 71, 449

Galaxies: haloes of; see also Galaxies: coronae of

Imaging of the ionized gas and stars in emission line galaxies Durret, F., Bergeron, J. 173, 219

Observation of the H II galaxy giving origin to the z = 0.3930 absorption system of the QSO 1209 + 107 Cristiani, S. 175, L1

Cosmological constraints of the "inos" composing galactic halos Ruffini, R., Song, D.J. 179, 3

Halo parameters of spiral galaxies

Athanassoula, E., Bosma, A., Papaioannou, S. 179, 23

Comprehensive study of the QSO-galaxy pair 1327-206 and the extent of low ionization galactic haloes

Bergeron, J., D'Odorico, S., Kunth, D. 180, 1

Dynamical friction and shells around elliptical galaxies Dupraz, C., Combes, F. 185, L1

Galaxies: individual; see also Galaxies: Magellanic Clouds

ESO 217-G09

CCD photometry and dynamics of the peculiar galaxy ESO 217-G09 $\,$

Marston, A.P. 183, 21

M 31

The Andromeda galaxy in γ-rays

Özel, M.E., Berkhuijsen, E.M. 172, 378

Mapping of a molecular complex in a northern spiral arm of M31

Casoli, F., Combes, F., Stark, A.A. 173, 43

Search for (globular) clusters in M31. IV. Candidates in a $3^{\circ}\times3^{\circ}$ square field centred on M31

Battistini, P., Bònoli, F., Braccesi, A., Federici, L., Fusi Pecci, F., Marano, B., Börngen, F. 175, 358; 67, 447

High resolution 5 GHz flux-densities of sources in M 31 Israel, F.P. 176, 191; 68, 109

Kinematics of ionized gas in the center of the Andromeda nebula (M 31)

Boulesteix, J., Georgelin, Y.P., Lecoarer, E., Marcelin, M., Monnet, G. 178, 91

Multi-color photographic surface photometry of the Andromeda galaxy

Walterbos, R.A.M., Kennicutt, R.C., Jr. 178, 328; 69, 309

Infrared emission from interstellar dust in the Andromeda Galaxy

Walterbos, R.A.M., Schwering, P.B.W. 180, 27

Near-infrared photometry of globular clusters in the outer halo of M31

Bònoli, F., Delpino, F., Federici, L., Fusi Pecci, F. 185, 25

M 33

An objective-prism survey of emission-line objects in M 33 and IC 1613

Lequeux, J., Meyssonnier, N., Azzopardi, M. 173, 218; 67, 169

 $H\alpha$ survey of M33 with the six-meter telescope: morphology of the general diffuse emission, evidence for a chaotic medium of bubbles and filaments

Courtès, G., Petit, H., Sivan, J.-P., Dodonov, S., Petit, M. 174, 28

The central X-ray source in M 33

Gottwald, M., Pietsch, W., Hasinger, G. 175, 45

A survey of the neutral atomic hydrogen in M 33

Deul, E.R., van der Hulst, J.M. 175, 360; 67, 509

A multifrequency radio continuum survey of M 33. I. Observa-

Buczilowski, U.R., Beck, R. 176, 192; 68, 171

M 51

The magnetic field in M 51
Beck, R., Klein, U., Wielebinski, R. 186, 95

MR

Multi-frequency radio continuum observations of NGC 5236 (M83)

Sukumar, S., Klein, U., Gräve, R. 184, 71

Markarian 297

Markarian 297 knots

Hecquet, J., Coupinot, G., Maucherat, A.J. 183, 13

NGC 1068

High spatial resolution IR observations and variability of the nuclear region of NGC 1068: structure and nature of the inner 100 parsec

Chelli, A., Perrier, C., Cruz-González, I., Carrasco, L. 177, 51

NGC 1097

Circumnuclear star formation in the central region of the barred spiral galaxy NGC 1097

Hummel, E., van der Hulst, J.M., Keel, W.C. 172, 32

NGC 1381

Surface photometry of the edge-on galaxy NGC 1381 de Carvalho, R.R., da Costa, L.N. 171, 66

NGC 2787

The distribution of H_I in the lenticular galaxy NGC 2787 Shostak, G.S. 175, 4

NGC 2992

Extended emission line regions in nearby Seyfert galaxies. I. NGC 2992

Colina, L., Fricke, K.J., Kollatschny, W., Perryman, M.A.C. 178, 51

NGC 3628

High resolution 12 CO observations of the central parts of the interacting galaxy NGC 3628

Boissé, P., Casoli, F., Combes, F. 173, 229

S

ir

NGC 4151

- The core of the narrow line region of NGC 4151 Schulz, H. 178, 7
- Lines of high excitation in NGC 4151: new measurements of [Fex] and [Fexiv]

Pelat, D., Alloin, D., Bica, E. 182, 9

NGC 4261

A dust lane in the elliptical galaxy NGC 4261 = 3 C 270 Möllenhoff, C., Bender, R. 174, 63

NGC 4388

- Extended emission line regions in nearby Seyfert galaxies. II. NGC 4388
 - Colina, L., Fricke, K.J., Kollatschny, W., Perryman, M.A.C. 186, 39

NGC 4874

High resolution radio observations of NGC 4874 Feretti, L., Giovannini, G. 182, 15

NGC 5430

The stellar population in the Wolf-Rayet knot in NGC 5430 Keel, W.C. 172, 43

NGC 6946

Gas kinematics in the nucleus of NGC 6946 Muñoz-Tuñon, C., Vilchez, J.M. 186, 25

NGC 7752

- The detailed velocity field of the ionized gas in the interacting pair of galaxies NGC 7752-53
 - Marcelin, M., Lecoarer, E., Boulesteix, J., Georgelin, Y., Monnet, G. 179, 101

NGC 7753

- The detailed velocity field of the ionized gas in the interacting pair of galaxies NGC 7752-53
 - Marcelin, M., Lecoarer, E., Boulesteix, J., Georgelin, Y., Monnet, G. 179, 101

PKS 0521-36

The active galaxy PKS 0521-36 and its optical jet Cayatte, V., Sol, H. 171, 25

VV 33

CCD photometry of the ring galaxy VV 32 Bonoli, C. 174, 57

3 C 111

- Strong structural variability in the lobe-dominated radio galaxy 3C111
 - Götz, M.M.A., Alef, W., Preuss, E., Kellermann, K.I. 176, 171

Galaxies: irregular

- Some inferences on chemical evolution from a study of irregular and blue compact galaxies
 - Vigroux, L., Stasińska, G., Comte, G. 172, 15
- A continuum survey of dwarf galaxies at 1400 MHz, II Altschuler, D.R., Giovanardi, C., Pantoja, C.A. 177, 22
- Ultraviolet observations and star-formation rate in galaxies
 - Donas, J., Deharveng, J.M., Laget, M., Milliard, B., Huguenin, D. 180, 12

- High-dispersion spectroscopy of the clumpy irregular galaxies Markarian 297 and 325
 - Taniguchi, Y., Tamura, S. 181, 265
- Markarian 297 knots
 - Hecquet, J., Coupinot, G., Maucherat, A.J. 183, 13
- Neutral hydrogen observations of four dwarf irregular galaxies in the Virgo Cluster
 - Skillman, E.D., Bothun, G.D., Murray, M.A., Warmels, R.H.
- 50 kpc radio trails behind irregular galaxies in A 1367
 - Gavazzi, G., Jaffe, W. 186, L1
- The stellar content and morphology of the dwarf irregular galaxy Holmberg IX
 - Hopp, U., Schulte-Ladbeck, R.E. 188, 5
- CCD photometry of resolved dwarf irregular galaxies. I. Sextans
 - Aparicio, A., García-Pelayo, J.M., Moles, M., Melnick, J. 188, 267; 71, 297

Galaxies: jets of

- The active galaxy PKS 0521-36 and its optical jet *Cayatte*, V., Sol, H. 171, 25
- The central region of NGC 613. Evidence for an accelerated collimated outflow
 - Hummel, E., Jörsäter, S., Lindblad, P.O., Sandqvist, A. 172, 51
- Strong structural variability in the lobe-dominated radio galaxy 3 C 111
 - Götz, M.M.A., Alef, W., Preuss, E., Kellermann, K.I. 176,
- Alternating side ejection or precession of jets in radio sources Roos, N., Meurs, E.J.A. 181, 14
- VLA observations of low-luminosity radio galaxies. VI. Discussion of radio iets
 - Parma, P., Fanti, C., Fanti, R., Morganti, R., de Ruiter, H.R. 181, 244
- VLA observations of low luminosity radio galaxies. V. A detailed radio study of five jets
 - Morganti, R., Fanti, C., Fanti, R., Parma, P., de Ruiter, H.R. 183, 203
- Hydromagnetic flows from rapidly rotating compact objects. II.The relativistic axisymmetric jet equilibrium
 - Camenzind, M. 184, 341

Galaxies: kinematics and dynamics of

- Tidal triggering of Seyfert galaxies and quasars: occurrence in multiple systems
 - Byrd, G.G., Sundelius, B., Valtonen, M. 171, 16
- Large degree stochasticity in a galactic model
 - Contopoulos, G., Varvoglis, H., Barbanis, B. 172, 55
- Complex instability around the rotation axis of stellar systems. I. Galactic potentials
 - Martinet, L., Pfenniger, D. 173, 81
- Shell generation in galaxies
 - Huang, S-N., Stewart, P. 174, 13
- Tidal spiral arms in two-component galaxies. Density waves and swing amplification
 - Sundelius, B., Thomasson, M., Valtonen, M.J., Byrd, G.G. 174, 67
- The distribution of H1 in the lenticular galaxy NGC 2787 Shostak, G.S. 175, 4

Late-type galaxies. The shapes of the spiral arm filaments (Text in German)

Isserstedt, J., Schindler, R. 175, 23

Search for (globular) clusters in M31. IV. Candidates in a $3^{\circ}\times3^{\circ}$ square field centred on M31

Battistini, P., Bònoli, F., Braccesi, A., Federici, L., Fusi Pecci, F., Marano, B., Börngen, F. 175, 358; 67, 447

A survey of the neutral atomic hydrogen in M 33 Deul, E.R., van der Hulst, J.M. 175, 360; 67, 509

Dark matter associated with binary galaxies van Moorsel, G.A. 176, 13

Rotational curves of galaxies and neutrino halos Paganini, R., Straumann, N., Wyler, D. 177, 84

The core of the narrow line region of NGC 4151 Schulz, H. 178, 7

The stellar velocity dispersion in the disk of the spiral galaxy NGC 5170

Bottema, R., van der Kruit, P.C., Freeman, K.C. 178, 77

Kinematics of ionized gas in the center of the Andromeda nebula (M 31)

Boulesteix, J., Georgelin, Y.P., Lecoarer, E., Marcelin, M., Monnet, G. 178, 91

Halo parameters of spiral galaxies

Athanassoula, E., Bosma, A., Papaioannou, S. 179, 23

The detailed velocity field of the ionized gas in the interacting pair of galaxies NGC 7752-53

Marcelin, M., Lecoarer, E., Boulesteix, J., Georgelin, Y., Monnet, G. 179, 101

Complex instability around the rotation axis of stellar systems. II. Rotating oscillators

Pfenniger, D. 180, 79

Periodic orbits in a triaxial galaxy. III. Their stability Robe, H. 182, 202

CCD photometry and dynamics of the peculiar galaxy ESO 217-

Marston, A.P. 183, 21

Dynamical friction and shells around elliptical galaxies Dupraz, C., Combes, F. 185, L1

Near-infrared photometry of globular clusters in the outer halo of M 31

Bônoli, F., Delpino, F., Federici, L., Fusi Pecci, F. 185, 25 Neutral hydrogen observations of four dwarf irregular galaxies in the Virgo Cluster

Skillman, E.D., Bothun, G.D., Murray, M.A., Warmels, R.H.

An expanding shell of galaxies in the center of the Hydra I cluster?

Fouqué, P. 185, 94

Gas kinematics in the nucleus of NGC 6946 Muñoz-Tuñon, C., Vilchez, J.M. 186, 25

High resolution spectrum of the starburst galaxy Tololo 1924-416 (= ESO 338-IG 04)

Iye, M., Ulrich, M.-H., Peimbert, M. 186, 84

Galaxies: lenticular

Surface photometry of the edge-on galaxy NGC 1381 de Carvalho, R.R., da Costa, L.N. 171, 66

Evolution of spiral galaxies in the Virgo cluster. II. Evidence for a threshold in star formation processes

Guiderdoni, B. 172, 27

The distribution of H_I in the lenticular galaxy NGC 2787 Shostak, G.S. 175, 4

Star formation in nuclei of S0/E galaxies

Rocca-Volmerange, B., Guiderdoni, B. 175, 15

A statistical method to derive the true distribution of an astronomical parameter some values of which are known only by limits

Chamaraux, P. 177, 326

HI observations of lenticular and early type galaxies

Chamaraux, P., Balkowski, C., Fontanelli, P. 178, 326; 69, 261

Galaxies: Magellanic Clouds

Spectral classification of bright stars in LMC clusters

Xiradaki, E., Kontizas, M., Kontizas, E. 173, 215; 67, 25

Radiation driven winds of hot luminous stars. II. Wind models for O-stars in the Magellanic Clouds

Kudritzki, R.P., Pauldrach, A., Puls, J. 173, 293

The stellar association LH 39 in the Large Magellanic cloud and its Wolf-Rayet star

Schild, H. 173, 405

Model calculations for supernova remnants in the Large Magellanic Cloud

Contini, M. 174, 5

VBLUW photometry of emission nebulae

Greve, A., van Genderen, A.M. 174, 243

Determination of the radii of Cepheids. IV. Dimensions of HV 879, HV 899, HV 909, HV 2257, HV 2338, HV 2827 and the distance of the Large Magellanic Cloud (Text in French)

Imbert, M. 175, 30

A population of faint blue stars in a southern external part of the Large Magellanic Cloud

Pierre, M. 175, 54

First observations with the scanning Fabry-Perot interferometer CIGALE: the stellar wind bubble N 62 B in the Large Magellanic Cloud

Laval, A., Boulesteix, J., Georgelin, Y.P., Georgelin, Y.M., Marcelin, M. 175, 199

Deep photometry of globular clusters. VI. E2 and E3 Gratton, R.G., Ortolani, S. 175, 357; 67, 373

Radial velocities of southern stars obtained with the photoelectric scanner CORAVEL. VI. 233 F to M type stars in and near the Small Magellanic Cloud. Comparison with 80 spectrographic radial velocities of O to K type stars in this Galaxy

Maurice, E., Andersen, J., Ardeberg, A., Bardin, C., Imbert, M., Lindgren, H., Martin, N., Mayor, M., Nordström, B., Prévot, L., Rebeirot, E., Rousseau, J. 175, 358; 67, 423

The Large Magellanic Cloud at 45 MHz: a symmetric but warped galaxy

Alvarez, H., Aparici, J., May, J. 176, 25

The peculiar early-type emission line supergiant S 18/SMC: an optical and ultraviolet study

Shore, S.N., Sanduleak, N., Allen, D.A. 176, 59

BVR photometry of late-type stars in the direction of the Large Magellanic Cloud

Robin, A., Martin, N., Peyrin, Y., Prévot, L., Rebeirot, E., Rousseau, J. 176, 189; 68, 63

Observed dynamical parameters of the disk clusters of the LMC.

Kontizas, M., Chrysovergis, M., Kontizas, E. 176, 192; 68, 147

Optical spectroscopy of SN 1987 A

Danziger, I.J., Fosbury, R.A.E., Alloin, D., Cristiani, S., Dachs, J., Gouiffes, C., Jarvis, B., Sahu, K.C. 177, L13

Early observations of Supernova 1987 A with the International Ultraviolet Explorer (IUE)

Wamsteker, W., Panagia, N., Barylak, M., Cassatella, A., Clavel, J., Gilmozzi, R., Gry, C., Lloyd, C., van Santvoort, J., Talavera, A. 177, L21

Photometric properties of SN 1987 A and other sources in the same field

Panagia, N., Gilmozzi, R., Clavel, J., Barylak, M., Gonzalez Riesta, R., Lloyd, C., Sanz Fernandez de Corboda, L., Wamsteker, W. 177, L25

Spectral evolution of SN 1987 A in the far-ultraviolet Cassatella, A., Fransson, C., van Santvoort, J., Gry, C., Talavera, A., Wamsteker, W., Panagia, N. 177, L29

Interstellar lines in SN 1987 A observed with the IUE de Boer, K.S., Grewing, M., Richtler, T., Wamsteker, W., Gry, C., Panagia, N. 177, L37

Spectral classification of bright stars in LMC clusters. II. Kontizas, E., Kontizas, M., Xiradaki, E. 177, 350; 68, 357

Masses and tidal radii of the star clusters in the halo of the LMC.

Kontizas, M., Hadjidimitriou, D., Kontizas, E. 177, 352; 68, 493

High degree of fragmentation in the nebulae SMC:N 83 and N 84 and discovery of two O stars

Testor, G., Lortet, M.-C. 178, 25

Thermal and nonthermal radio emission from the Small Magellanic Cloud

Loiseau, N., Klein, U., Greybe, A., Wielebinski, R., Haynes, R.F. 178, 62

Spectral classification of bright stars in remote LMC clusters.

Xiradaki, E., Kontizas, M., Kontizas, E. 178, 326; 69, 211

Cepheids in the Magellanic Clouds. I. Fourier decomposition of LMC Cepheid light curves

Andreasen, G.K., Petersen, J.O. 180, 129

Small Magellanic Cloud: Hγ-line equivalent widths and luminosity classes of the brightest blue star members

Azzopardi, M. 180, 279;69, 421

Detection of shell-like features in the north-eastern halo of the Small Magellanic Cloud

Albers, H., Macgillivray, H.T., Beard, S.M., Chromey, F.R. 182, L8

Detections of diffuse interstellar bands towards the SN 1987 A in the Large Magellanic Cloud

Vladilo, G., Crivellari, L., Molaro, P., Beckman, J.E. 182, L59

Spectral types of bright stars in the Small Magellanic Cloud Wing

Kontizas, E., Morgan, D.H., Dapergolas, A., Kontizas, M. 182, 359; 70, 1

Spectral types of bright stars in the north-east arm of the Small Magellanic Cloud

Dapergolas, A., Kontizas, E., Kontizas, M., Morgan, D.H. 182, 359; 70, 15

Detection of interstellar CH and CH⁺ towards SN 1987 A Magain, P., Gillet, D. 184, L5

Photometry and spectroscopy of the eclipsing P Cygni star R 81 in the Large Magellanic Cloud

Stahl, O., Wolf, B., Zickgraf, F.-J. 184, 193

The relation between optical and X-ray flux variations of the black-hole candidate LMC X-3

van Paradijs, J., van der Klis, M., Augusteijn, T., Charles, P., Corbet, R.H.D., Ilovaisky, S., Maraschi, L., Motch, C., Pakull, M., Smale, A.P., Treves, A., van Amerongen, S. 184, 201

The LMC H_{II} regions N 11 C and E and their stellar contents Heydari-Malayeri, M., Niemela, V.S., Testor, G. 184, 300

The neutrino burst from Supernova 1987 A: a search for periodicities

Fischer, D. 186, L11

Near-infrared spectral properties of star clusters and galactic nuclei

Bica, E., Alloin, D. 186, 49

Cepheids in the Magellanic Clouds. II. Search for double mode Cepheids in the LMC

Andreasen, G.K. 186, 159

High-dispersion spectroscopy of the Of/WN stars R 84 and S 61 of the Large Magellanic Cloud

Wolf, B., Stahl, O., Seifert, W. 186, 182

Deep photometry of globular clusters. X. The cluster GIC0435-59 in Reticulum

Gratton, R.G., Ortolani, S. 186, 364; 71, 131

The initial-final mass relation: galactic disk and Magellanic Clouds

Weidemann, V. 188, 74

Distribution of spectral types in the LMC clusters Kontizas, E., Kontizas, M., Xiradaki, E. 188, 274; 71, 575

Galaxies: nuclei of

Study of multiple nucleus galaxies. II. Mkn 739
Netzer, H., Kollatschny, W., Fricke, K.J. 171, 41

Circumnuclear star formation in the central region of the barred spiral galaxy NGC 1097

Hummel, E., van der Hulst, J.M., Keel, W.C. 172, 32

The central region of NGC 613. Evidence for an accelerated collimated outflow

Hummel, E., Jörsäter, S., Lindblad, P.O., Sandqvist, A. 172, 51

Star formation in nuclei of S0/E galaxies

Rocca-Volmerange, B., Guiderdoni, B. 175, 15

The central X-ray source in M 33

Gottwald, M., Pietsch, W., Hasinger, G. 175, 45

Strong structural variability in the lobe-dominated radio galaxy $3\,C\,111$

Götz, M.M.A., Alef, W., Preuss, E., Kellermann, K.I. 176, 171

Optical emission-line activity and radio continuum power in the nuclei of spiral galaxies

Giuricin, G., Mardirossian, F., Mezzetti, M. 176, 175

High spatial resolution IR observations and variability of the nuclear region NGC 1068: structure and nature of the inner 100 parsec

Chelli, A., Perrier, C., Cruz-González, I., Carrasco, L. 177, 51 The core of the narrow line region of NGC 4151

Schulz, H. 178, 7

Stabilization and consequences of relativistic electron bumps in extragalactic radio sources

Lesch, H., Schlickeiser, R. 179, 93

FIR galaxies with compact radio cores

Chini, R., Biermann, P.L., Kreysa, E., Kühr, H., Mezger, P.G., Schmidt, J., Witzel, A., Zensus, J.A. 181, 237

Hard X-ray observations of the quasar 3C273

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V., Venkatesan, D. 182, L1

The evolution of clumpy gas in young elliptical galaxies Kunze, R., Loose, H.-H., Yorke, H.W. 182, 1

Lines of high excitation in NGC 4151: new measurements of [Fe x] and [Fe xIV]

Pelat, D., Alloin, D., Bica, E. 182, 9

Analysis of absorption-line spectra in a sample of 164 galactic nuclei

Bica, E., Alloin, D. 183, 188; 70, 281

Formation of low ionization lines in active galactic nuclei Joly, M. 184, 33

The inverse Compton test for a large sample of compact radio sources

Biermann, P.L., Kühr, H., Snyder, W.A., Zensus, J.A. 185, 9 The effects of interactions on spiral galaxies. III. A radio continuum survey of galactic nuclei at 1.49 GHz

Hummel, E., van der Hulst, J.M., Keel, W.C., Kennicutt, R.C., Jr. 185, 358: 70, 517

Erratum: Hard X-ray observations of the quasar 3C 273

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V.,

Venkatesan, D. 186, L20

Gas kinematics in the nucleus of NGC 6946 Muñoz-Tuñon, C., Vilchez, J.M. 186, 25

Near-infrared spectral properties of star clusters and galactic nuclei

Bica, E., Alloin, D. 186, 49

Galaxies: radio

H_I observations of galaxies in a catalog of nearby galaxies. II. The motion of the Sun and the Galaxy and the velocity dispersion of "field" galaxies

Richter, O.-G., Tammann, G.A., Huchtmeier, W.K. 171, 33

A dust lane in the elliptical galaxy NGC 4261 = 3 C 270 Möllenhoff, C., Bender, R. 174, 63

0.6 GHz mapping of extended radio galaxies. I. Edge-brightened double sources

Jägers, W.J. 175, 357; 67, 395

Strong structural variability in the lobe-dominated radio galaxy 3C111

Götz, M.M.A., Alef, W., Preuss, E., Kellermann, K.I. 176, 171

Optical emission-line activity and radio continuum power in the nuclei of spiral galaxies

Giuricin, G., Mardirossian, F., Mezzetti, M. 176, 175

High resolution 5 GHz flux-densities of sources in M 31 Israel, F.P. 176, 191; 68, 109

Fossil nebulae in the context of active galaxies. I. Time evolution of a single cloud

Binette, L., Robinson, A. 177, 11

A continuum survey of dwarf galaxies at 1400 MHz, II Altschuler, D.R., Giovanardi, C., Pantoja, C.A. 177, 22

Radio activity and the shape of elliptical galaxies Bender, R., Döbereiner, S., Möllenhoff, C. 177, L53

Observational study of the Hubble diagram

Wampler, E.J. 178, 1 VLA observations of low luminosity radio galaxies. IV. The B2 sample revisited

Fanti, C., Fanti, R., de Ruiter, H.R., Parma, P. 178, 323; 69, 57

Radio observations of the first ranked galaxies in A98, A115, A160, A278, and A568

Giovannini, G., Feretti, L., Gregorini, L. 178, 325; 69, 171

VLA high resolution observations of weak Leiden-Berkeley Deep-Survey (LBDS) sources

Oort, M.J.A., Katgert, P., Steeman, F.W.M., Windhorst, R.A. 179, 41

Systematics of the Tully-Fisher relation in the *B*, *V* system *Giraud*, *E*. **180**, 57

A further study of the relation of the radio-far-infrared in galaxies. I. Observations and data processing

Wunderlich, E., Klein, U., Wielebinski, R. 180, 281; 69, 487

Alternating side ejection or precession of jets in radio sources Roos, N., Meurs, E.J.A. 181, 14

FIR galaxies with compact radio cores

Chini, R., Biermann, P.L., Kreysa, E., Kühr, H., Mezger, P.G., Schmidt, J., Witzel, A., Zensus, J.A. 181, 237

VLA observations of low-luminosity radio galaxies. VI. Discussion of radio jets

Parma, P., Fanti, C., Fanti, R., Morganti, R., de Ruiter, H.R. 181, 244

High resolution radio observations of NGC 4874 Feretti, L., Giovannini, G. 182, 15

The optical spectral index in the south radio lobe of 3C33 Crane, P., Stockton, A., Saslaw, W.C. 183, 16

VLA observations of low luminosity radio galaxies. V. A detailed radio study of five jets

Morganti, R., Fanti, C., Fanti, R., Parma, P., de Ruiter, H.R. 183, 203

The local radio luminosity function of galaxies

Toffolatti, L., Franceschini, A., De Zotti, G., Danese, L. 184,

Multi-frequency radio continuum observations of NGC 5236 (M83)

Sukumar, S., Klein, U., Gräve, R. 184, 71

The inverse Compton test for a large sample of compact radio sources

Biermann, P.L., Kühr, H., Snyder, W.A., Zensus, J.A. 185, 9

50 kpc radio trails behind irregular galaxies in A 1367 Gavazzi, G., Jaffe, W. 186, L1

A WSRT 21 cm deep survey of two fields in Hercules Oort, M.J.A., van Langevelde, H.J. 186, 361; 71, 25

 $0.6\,\mathrm{GHz}$ mapping of extended radio galaxies. II. Edge-darkened double sources

Jägers, W.J. 186, 363; 71, 75

A deep WSRT 21 cm survey down to 0.1 mJy in the Lynx area *Oort, M.J.A.* **188**, 266; 71, 221

Morphology of extended emission-line regions associated with radio galaxies

Hansen, L., Nørgaard-Nielsen, H.U., Jørgensen, H.E. 188, 271; 71, 465

Optical identifications and radio morphology of the complete 5 GHz S5 survey

Kühr, H., Johnston, K.J., Odenwald, S., Adlhoch, J. 188, 272; 71, 493

0.6 GHz mapping of extended radio galaxies. III. 3C 66B, NGC 1265, 3C 129, DA 240, 3C 236, 4C 48.29, IC 708 & IC 711, 4CT 51.29.1, 3C 310, Abell 2256, 3C 402 and 3C 465

Jägers, W.J. 188, 275; 71, 603

Galaxies: redshifts of

Detection of features in the large-scale galaxy distribution from wide-angle samples of objective-prism spectra

Parker, Q.A., Beard, S.M., MacGillivray, H.T. 173, L5

New measurements of radial velocities in clusters of galaxies Proust, D., Talavera, A., Salvador Sole, E., Mazure, A., Capelato, H.V. 173, 215; 67, 57

The Hydra I cluster of galaxies. III. New redshifts Richter, O.-G. 173, 417; 67, 237

Redshifts for galaxies in southern clusters Richter, O.-G. 173, 418; 67, 261

Malmquist bias, type effect and dispersion in the Tully-Fisher relation

Giraud. E. 174, 23

First results of a spectroscopic search for gravitational mirages Reboul, H., Vanderriest, C., Fringant, A.M., Cayrel, R. 177, 337

Observational study of the Hubble diagram Wampler, E.J. 178, 1

Velocity measurements in the Coma filament of galaxies Talavera, A., Balkowski, C., Fontanelli, P. 178, 328; 69, 331

Radial velocities of galaxies in the cluster Klemola 22 from observations with OPTOPUS, the ESO multiple object spectroscopy facility

Cristiani, S., de Souza, R., D'Odorico, S., Lund, G., Quintana, H. 179, 108

Malmquist bias in the determination of the distance to the Hercules supercluster

Giraud, E. 180, 50

The Perseus supercluster at low galactic latitudes Hauschildt, M. 184, 43

Galaxies: Seyfert

Tidal triggering of Seyfert galaxies and quasars: occurrence in multiple systems

Byrd, G.G., Sundelius, B., Valtonen, M. 171, 16

The active galaxy PKS 0521-36 and its optical jet

Cayatte, V., Sol, H. 171, 25

Imaging of the ionized gas and stars in emission line galaxies Durret, F., Bergeron, J. 173, 219

High spatial resolution IR observations and variability of the nuclear region of NGC 1068: structure and nature of the inner 100 parsec

Chelli, A., Perrier, C., Cruz-González, I., Carrasco, L. 177, 51
First results of a spectroscopic search for gravitational mirages
Reboul, H., Vanderriest, C., Fringant, A.M., Cayrel, R. 177,
337

The core of the narrow line region of NGC 4151 Schulz, H. 178, 7

Line and continuum radiation from the outer region of accretion discs in active galactic nuclei. I. Preliminary considerations *Collin-Souffrin*, S. 179, 60

Radial velocities of galaxies in the cluster Klemola 22 from observations with OPTOPUS, the ESO multiple object spectroscopy facility

Cristiani, S., de Souza, R., D'Odorico, S., Lund, G., Quintana, H. 179, 108

FIR galaxies with compact radio cores

Chini, R., Biermann, P.L., Kreysa, E., Kühr, H., Mezger, P.G., Schmidt, J., Witzel, A., Zensus, J.A. 181, 237

Warm IRAS sources. I. A catalogue of AGN candidates from the point source catalog

de Grijp, M.H.K., Miley, G.K., Lub, J. 182, 362; 70, 95

The Seyfert 2 galaxy IC 184 and its surrounding group

Kollatschny, W., Fricke, K.J. 183, 9

The influence of relativistic electrons on a photoionized gaseous cloud

Gruenwald, R.B., Viegas-Aldrovandi, S.M. 183, 185; 70, 143 Extended ionized nebulosities in the galaxies Mk 1, Mk 3, Mk 348 and the quasar 4 C 37.43

Bergeron, J., Durret, F. 184, 93

Composite models for the narrow emission line region of active galactic nuclei. V. The line profiles

Contini, M., Viegas-Aldrovandi, S.M. 185, 39

The kinematical structure of the extended emission-line region of the early-type Seyfert-galaxy Mrk 3

Wagner, S.J. 185, 77

Extended emission line regions in nearby Seyfert galaxies. II. NGC 4388

Colina, L., Fricke, K.J., Kollatschny, W., Perryman, M.A.C. 186, 39

Broad emission line profiles in Seyfert-1 galaxies. I. Evidence for a disk and a wind in Mkn 335

van Groningen, E. 186, 103

Galaxies: spiral

Evolution of spiral galaxies in the Virgo cluster. II. Evidence for a threshold in star formation processes

Guiderdoni, B. 172, 27
Central velocity gradients and the clas

Central velocity gradients and the classification of spiral galaxies

Baiesi-Pillastrini, G.C. 172, 375

The Andromeda galaxy in γ-rays

Özel, M.E., Berkhuijsen, E.M. 172, 378

Mapping of a molecular complex in a northern spiral arm of M 31

Casoli, F., Combes, F., Stark, A.A. 173, 43

High resolution \$^{12}CO\$ observations of the central parts of the interacting galaxy NGC 3628

Boissé, P., Casoli, F., Combes, F. 173, 229

A catalogue of early-type galaxies with emission lines

Bettoni, D., Buson, L.M. 173, 420; 67, 341

Tidal spiral arms in two-component galaxies. Density waves and swing amplification

Sundelius, B., Thomasson, M., Valtonen, M.J., Byrd, G.G. 174, 67

Late-type galaxies. The shapes of the spiral arm filaments (Text in German)

Isserstedt, J., Schindler, R. 175, 23

A multifrequency radio continuum survey of M 33. I. Observations

Buczilowski, U.R., Beck, R. 176, 192; 68, 171

Generation of large-scale magnetic fields in spiral galaxies Baryshnikova, Y., Ruzmaikin, A., Sokoloff IV, D.D., Shukurov, A. 177, 27

The neutral hydrogen content of red spiral galaxies

van der Hulst, J.M., Skillman, E.D., Kennicutt, R.C, Bothun, G.D. 177, 63

Second-order Fermi acceleration and radio spectral index distributions in supernova remnants and bright spiral galaxies

Dröge, W., Lerche, I., Schlickeiser, R. 178, 252

Multi-color photographic surface photometry of the Andromeda galaxy

Walterbos, R.A.M., Kennicutt, R.C., Jr. 178, 328; 69, 309. Halo parameters of spiral galaxies

Athanassoula, E., Bosma, A., Papaioannou, S. 179, 23

Ultraviolet observations and star-formation rate in galaxies

Donas, J., Deharveng, J.M., Laget, M., Milliard, B., Huguenin,
D. 180, 12

Systematics of the Tully-Fisher relation in the B, V system Giraud, E. 180, 57

IRAS observations of three edge-on galaxies

Wainscoat, R.J., de Jong, T., Wesselius, P.R. 181, 225

Multi-frequency radio continuum observations of NGC 5236 (M83)

Sukumar, S., Klein, U., Gräve, R. 184, 71

The initial mass function for massive stars: a comparison between the total $H\alpha$ and ultraviolet fluxes of a sample of spiral and irregular galaxies

Buat, V., Donas, J., Deharveng, J.M. 185, 33

The effects of interactions on spiral galaxies. III. A radio continuum survey of galactic nuclei at 1.49 GHz

Hummel, E., van der Hulst, J.M., Keel, W.C., Kennicutt, R.C., Jr. 185, 358; 70, 517

A model of spectrophotometric evolution for high-redshift galaxies

Guiderdoni, B., Rocca-Volmerange, B. 186, 1

Gas kinematics in the nucleus of NGC 6946 Muñoz-Tuñon, C., Vilchez, J.M. 186, 25

The magnetic field in M 51

Beck, R., Klein, U., Wielebinski, R. 186, 95

Galaxies: stellar content of

A gravitational lens origin for AGN-variability? Consequences of micro-lensing

Schneider, P., Weiss, A. 171, 49

The stellar population in the Wolf-Rayet knot in NGC 5430 Keel, W.C. 172, 43

Chemical and photometric properties of a galactic wind model for elliptical galaxies

Arimoto, N., Yoshii, Y. 173, 23

The radial distribution of surface brightness in galactic disks van der Kruit. P.C. 173, 59

Star formation in nuclei of S0/E galaxies

Rocca-Volmerange, B., Guiderdoni, B. 175, 15

Far-infrared and optical properties of starburst galaxies Belfort, P., Mochkovitch, R., Dennefeld, M. 176, 1

The neutral hydrogen content of red spiral galaxies van der Hulst, J.M., Skillman, E.D., Kennicutt, R.C., Bothun, G.D. 177, 63

Red stars in the Fornax dwarf galaxy

Westerlund, B.E., Edvardsson, B., Lundgren, K. 178, 41

Multi-color photographic surface photometry of the Andromeda

Walterbos, R.A.M., Kennicutt, R.C., Jr. 178, 328; 69, 309
The metallicity versus luminosity relationship for early-type galaxies

Bica, E., Alloin, D. 181, 270

A study of the starburst galaxy ESO 495-G21 = He2-10 Johansson, L. 182, 179

A study of the silicate emission features of the IRAS low resolution spectra

Gal, O., de Muizon, M., Papoular, R., Pégourié, B. 183, 29 Analysis of absorption-line spectra in a sample of 164 galactic nuclei

Bica, E., Alloin, D. 183, 188; 70, 281

An interpretation of the line-strength indices in old stellar populations using an evolutionary synthesis approach

Aragón, A., Gorgas, J., Rego, M. 185, 97

Near-infrared spectral properties of star clusters and galactic nuclei

Bica, E., Alloin, D. 186, 49

An analysis of the emission features of the IRAS low-resolution spectra of carbon stars

Baron, Y., de Muizon, M., Papoular, R., Pégourié, B. 186, 271

The stellar content and morphology of the dwarf irregular galaxy Holmberg IX

Hopp, U., Schulte-Ladbeck, R.E. 188, 5

Spheroidal systems as a one-parameter family of mass at their birth

Yoshii, Y., Arimoto, N. 188, 13

CCD photometry of resolved dwarf irregular galaxies. I. Sextans $^{\Delta}$

Aparicio, A., García-Pelayo, J.M., Moles, M., Melnick, J. 188, 267: 71, 297

Galaxies: structure of

Surface photometry of the edge-on galaxy NGC 1381 de Carvalho, R.R., da Costa, L.N. 171, 66

Photometric and spectroscopic investigation of three close companions of M 87

Prugniel, P., Nieto, J.-L., Simien, F. 173, 49

The radial distribution of surface brightness in galactic disks van der Kruit, P.C. 173, 59

Complex instability around the rotation axis of stellar systems. I. Galactic potentials

Martinet, L., Pfenniger, D. 173, 81

Imaging of the ionized gas and stars in emission line galaxies Durret, F., Bergeron, J. 173, 219

A dust lane in the elliptical galaxy NGC 4261 = 3C270

Möllenhoff, C., Bender, R. 174, 63

Deprojection of the de Vaucouleurs r^{1/4} brightness profile *Mellier*, Y., Mathez, G. 175, 1

Late-type galaxies. The shapes of the spiral arm filaments (Text in German)

Isserstedt, J., Schindler, R. 175, 23

A survey of the neutral atomic hydrogen in M 33

Deul, E.R., van der Hulst, J.M. 175, 360; 67, 509

The Large Magellanic Cloud at 45 MHz: a symmetric but warped galaxy

Alvarez, H., Aparici, J., May, J. 176, 25

Morphological analysis of massive early-type galaxies in the Virgo Cluster

Bender, R., Möllenhoff, C. 177, 71

The stellar velocity dispersion in the disk of the spiral galaxy NGC 5170

Bottema, R., van der Kruit, P.C., Freeman, K.C. 178, 77

Note on comparative analysis of the H_I content in galaxies Giraud, E. 178, 310

Multi-color photographic surface photometry of the Andromeda galaxy

Walterbos, R.A.M., Kennicutt, R.C., Jr. 178, 328; 69, 309

Halo parameters of spiral galaxies

Athanassoula, E., Bosma, A., Papaioannou, S. 179, 23

VLA high resolution observations of weak Leiden-Berkeley Deep-Survey (LBDS) sources

Oort, M.J.A., Katgert, P., Steeman, F.W.M., Windhorst, R.A. 179, 41

Complex instability around the rotation axis of stellar systems. II. Rotating oscillators

Pfenniger, D. 180, 79

The kinematical structure of the extended emission-line region of the early-type Seyfert-galaxy Mrk 3

Wagner, S.J. 185, 77

Variations in UV extinction in galactic associations and perpendicular to the galactic plane

Kiszkurno-Koziej, E., Lequeux, J. 185, 291

Box-shaped galaxies: a complete list

de Souza, R.E., dos Anjos, S. 185, 357; 70, 465

High resolution spectrum of the starburst galaxy Tololo 1924-416 (= ESO 338-IG 04)

Iye, M., Ulrich, M.-H., Peimbert, M. 186, 84

The stellar content and morphology of the dwarf irregular galaxy Holmberg IX

Hopp, U., Schulte-Ladbeck, R.E. 188, 5

A morphological survey of emission line galaxies

Tarrab, I. 188, 271; 71, 449

Galaxy (the): center of

First detection of SiO emission from circumstellar shells at the galactic centre

Lindqvist, M., Winnberg, A., Ukita, N., Johansson, L.E.B. 172, L3

Kinematics and physical parameters of neutral hydrogen in the inner Galaxy

Rohlfs, K., Kreitschmann, J. 178, 95

A molecular counterpart to the galactic center arc Serabyn, E., Güsten, R. 184, 133

Galaxy (the): disk of

The influence of massive molecular clouds in the evolution of the velocity dispersion of stars in the galactic disk

Semenzato, R. 175, 50

Kinematics and physical parameters of neutral hydrogen in the inner Galaxy

Rohlfs, K., Kreitschmann, J. 178, 95

Light element and Ni abundances in field disk and halo stars Gratton, R.G., Sneden, C. 178, 179

Collisions of high-velocity clouds with the Milky Way: the formation and evolution of large-scale structures

Tenorio-Tagle, G., Franco, J., Bodenheimer, P., Różyczka, M. 179, 219

Galactic tides affect the Oort cloud: an observational confirma-

Delsemme, A.H. 187, 913

Galaxy (the): evolution of

Measurement of lithium abundance in dwarf stars of M 67 Spite, F., Spite, M., Peterson, R.C., Chaffee, F.H., Jr. 171, L8

The 189 Os (n, γ) cross section and implications for the duration of stellar nucleosynthesis

Winters, R.R., Macklin, R.L., Hershberger, R.L. 171, 9

Stellar evolution with turbulent diffusion mixing, YII. Application to the determination of primordial ³He abundance Schatzman, E. 172, 1

Extreme possible variations of the deuterium abundance within the Galaxy

Delbourgo-Salvador, P., Audouze, J., Vidal-Madjar, A. 174,

Equivalent widths for field halo and disk stars Gratton, R.G., Sneden, C. 176, 193; 68, 193

Determination of the sulphur abundance in metal-deficient dwarf stars

François, P. 176, 294

The metal abundance of metal-rich globular clusters. IV. Oxygen abundances

Gratton, R.G. 177, 177

Light element and Ni abundances in field disk and halo stars Gratton, R.G., Sneden, C. 178, 179

The planar age-velocity dispersion relation from a polar sample of F stars with solar composition

Knude, J., Schnedler Nielsen, H., Winther, M. 179, 115

Abundances of light elements in halo dwarfs: a re-analysis Magain, P. 179, 176

The metal abundance of metal-rich globular clusters. III. NGC 288, NGC 362, NGC 5897, NGC 6352 and NGC 6362 Gratton, R.G. 179, 181

Upper limit to the boron abundance in the Population II star \mbox{HD} 140283

Molaro, P. 183, 241

The initial-final mass relation: galactic disk and Magellanic Clouds

Weidemann, V. 188, 74

Galaxy (the): general

RGU three-colour photometric space densities in a field near the galactic centre (PLAUT II), compared with different Galaxy models

del Rio, G., Fenkart, R. 177, 350; 68, 397

RGU-photometry in a complexly reddened Milky Way field in the direction to SA 193

Fenkart, R., Topaktas, L. 178, 327; 69, 279

Background starlight at the north and south celestial, ecliptic, and galactic poles

Toller, G., Tanabe, H., Weinberg, J.L. 188, 24

Observation of cosmic ray positrons in the region from 5 to 50 GeV

Golden, R.L., Stephens, S.A., Mauger, B.G., Badhwar, G.D., Daniel, R.R., Horan, S., Lacy, J.L., Zipse, J.E. 188, 145

Galaxy (the): halo of; see also Galaxy (the): corona of

Lithium abundance in two extreme high-velocity metal-poor halo dwarfs

Spite, M., Spite, F., Peterson, R.C., Chaffee, F.H., Jr. 172, L9

A photoelectric UBV sequence in SA 184

Ardeberg, A., Lindgren, H. 173, 216; 67, 103

RGU-three colour photometry in the anticentre-intermediate latitude field NGC 2420

Fenkart, R., Topaktas, L., Boydağ, S., Kandemir, G. 173, 417; 67, 245

The influence of massive molecular clouds in the evolution of the velocity dispersion of stars in the galactic disk

Semenzato, R. 175, 50

Light element and Ni abundances in field disk and halo stars Gratton, R.G., Sneden, C. 178, 179

Magnesium isotopes in metal-poor and metal-rich stars Barbuy, B., Spite, F., Spite, M. 178, 199

A search for far-infrared (IRAS) emission from early-type stars at high galactic latitudes

Keenan, F.P., Conlon, E.S., Brown, P.J.F. 178, 317

The planar age-velocity dispersion relation from a polar sample of F stars with solar composition

Knude, J., Schnedler Nielsen, H., Winther, M. 179, 115

Ammonia in the galactic halo and the infrared cirrus Mebold, U., Heithausen, A., Reif, K. 180, 213

Detections of diffuse interstellar bands towards the SN 1987 A in the Large Magellanic Cloud

Vladilo, G., Crivellari, L., Molaro, P., Beckman, J.E. 182,

Galaxy (the): kinematics and dynamics of

Large degree stochasticity in a galactic model

Contopoulos, G., Varvoglis, H., Barbanis, B. 172, 55

The influence of massive molecular clouds in the evolution of the velocity dispersion of stars in the galactic disk Semenzato, R. 175, 50

Kinematics of young open clusters and the rotation curve of our Galaxy

Hron, J. 176, 34

The velocity field of the outer Galaxy in the Southern Hemisphere. II. CO observations of galactic nebulae

Brand, J., Blitz, L., Wouterloot, J.G.A., Kerr, F.J. 176, 188; 68,

Systematic differences between "classical" radial velocities Brosche, P., Frantzen, H.P. 176, 367

Kinematics and physical parameters of neutral hydrogen in the inner Galaxy

Rohlfs, K., Kreitschmann, J. 178, 95

The planar age-velocity dispersion relation from a polar sample of F stars with solar composition

Knude, J., Schnedler Nielsen, H., Winther, M. 179, 115

The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 180, 94

A comparative study of galactic radial velocity fields

Feitzinger, J.V., Spicker, J. 184, 122

Radial velocities in three fields along the southern galactic equator

Denovelle, J. 185, 355; 70, 373

Giant-scale supernova remnants. The role of differential galactic rotation and the formation of molecular clouds

Tenorio-Tagle, G., Palouš, J. 186, 287

Erratum: The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 186, 359

The local kinematics of open star clusters Lyngå, G., Palouš, J. 188, 35

Galaxy (the): solar neighbourhood

CCD observations of jets from young stars Ray, T.P. 171, 145

Erratum: The relation between carbon monoxide emission and visual extinction in the local Perseus dark clouds

Bachiller, R., Cernicharo, J. 174, 368

Narrow-band photometry of late-type stars. II Häggkvist, L., Oja, T. 176, 194; 68, 259

Determination of the sulphur abundance in metal-deficient dwarf

François, P. 176, 294

Geneva photometric boxes. V. The far-ultraviolet extinction in the solar neighbourhood

Nicolet, B. 177, 233

Two senile nearby planetary nebulae and the local PN popula-

Ishida, K., Weinberger, R. 178, 227

The planar age-velocity dispersion relation from a polar sample of F stars with solar composition

Knude, J., Schnedler Nielsen, H., Winther, M. 179, 115

Kinematical origin of the dark clouds in Taurus and of some nearby galactic clusters

Olano, C.A., Pöppel, W.G.L. 179, 202

The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 180, 94

Mass function of stars in the solar neighbourhood Rana, N.C. 184, 104

A comparative study of galactic radial velocity fields Feitzinger, J.V., Spicker, J. 184, 122

The vicinity of Omicron Per

Bachiller, R., Cernicharo, J., Goldsmith, P., Omont, A. 185,

Erratum: The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 186, 359

Galactic tides affect the Oort cloud: an observational confirma-

Delsemme, A.H. 187, 913

The local kinematics of open star clusters Lyngå, G., Palouš, J. 188, 35

The flare energy spectrum of EV Lac

Mavridis, L.N., Avgoloupis, S. 188, 95

Galaxy (the): stellar content of

A photoelectric UBV sequence in SA 184

Ardeberg, A., Lindgren, H. 173, 216; 67, 103

The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 180, 94

The galactic distribution of Wolf-Rayet stars Doom, C. 182, L43

Mass function of stars in the solar neighbourhood

Rana, N.C. 184, 104

Erratum: The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 186, 359

Background starlight at the north and south celestial, ecliptic, and galactic poles

Toller, G., Tanabe, H., Weinberg, J.L. 188, 24

Galaxy (the): structure of

Southern HII regions: an extensive study of radio recombination line emission

Caswell, J.L., Haynes, R.F. 171, 261

RGU-three colour photometry in the anticentre-intermediate latitude field NGC 2420

Fenkart, R., Topaktas, L., Boydağ, S., Kandemir, G. 173, 417; 67, 245

A photometric study of the bright cloud B in Sagittarius. V. 185 new proper motion stars

Terzan, A., Turati, C., Ounnas, C. 173, 419; 67, 309

Galactic structure around longitude $l=317^{\circ}$ determined from CI-**GALE** observations

Georgelin, Y.M., Boulesteix, J., Georgelin, Y.P., Laval, A., Marcelin, M. 174, 257

Narrow-band photometry of late-type stars. II Häggkvist, L., Oja, T. 176, 194; 68, 259

Su

A

pr

T

th

RGU three-colour photometric space densities in a field near the galactic centre (PLAUT II), compared with different Galaxy models

del Rio, G., Fenkart, R. 177, 350; 68, 397

Kinematics and physical parameters of neutral hydrogen in the inner Galaxy

Rohlfs, K., Kreitschmann, J. 178, 95

Model-compared RGU-photometric space densities in the high-latitude field M 101

Fenkart, R., Karaali, S. 178, 322; 69, 33

RGU-photometry in a complexly reddened Milky Way field in the direction to SA 193

Fenkart, R., Topaktas, L. 178, 327; 69, 279

Collisions of high-velocity clouds with the Milky Way: the formation and evolution of large-scale structures

Tenorio-Tagle, G., Franco, J., Bodenheimer, P., Różyczka, M. 179, 219

The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 180, 94

Radial velocities in three fields along the southern galactic equator

Denoyelle, J. 185, 355; 70, 373

A comparison between two-dimensional classifications from Vilnius photometry and those on the MK system

Corbally, C.J., Boyle, R.P. 186, 114

Erratum: The mass density in our Galaxy. I. A dynamical model constrained by general star counts

Bienaymé, O., Robin, A.C., Crézé, M. 186, 359

Gamma rays: bursts

Optical flash background rates

Schaefer, B.E., Pedersen, H., Gouiffes, C., Poulsen, J.M., Pizzichini, G. 174, 338

Search for optical bursts from gamma-ray bursters. I

Hudec, R., Borovička, J., Wenzel, W., Atteia, J.-L., Barat, C., Hurley, K., Niel, M., Vedrenne, G., Evans, W.D., Fenimore, E.E., Klebesadel, R.W., Laros, J.G., Cline, T., Desai, U., Teegarden, B., Estulin, I., Zenchenko, V., Kuznetsov, A., Kurt, V. 175, 71

High-energy gamma-ray and hard X-ray observations of Cyg X-3

Hermsen, W., Bennett, K., Bloemen, J.B.G.M., Buccheri, R., Jansen, F.A., Mastichiadis, A., Mayer-Hasselwander, H.A., Özel, M.E., Pollock, A.M.T., Strong, A.W. 175, 141

Neutrino-antineutrino annihilation around a collapsar Berezinsky, V.S., Prilutsky, O.F. 175, 309

Are the galactic-bulge X-ray sources magnetized? Kundt, W., Özel, M.E., Ercan, E.N. 177, 163

Status of the Perseus optical flasher

Corso, G.J., Ringwald, F.A., Harris, R.W. 183, L9

COS-B upper limit to the >70 MeV gamma-ray flux from a gamma-ray burst event of 1979 November 9

Sumner, T.J., Clements, D.L., Williams, O.R., Rochester, G.K. 188, 273; 71, 557

Gamma rays: general

Search for pulsed emission of very high energy gamma rays from Geminga

Bhat, P.N., Gopalakrishnan, N.V., Ramana Murthy, P.V., Swaminathan, S., Vishwanath, P.R. 171, 84

New evidence at X-ray and COS-B γ-ray frequencies for non-thermal phenomena in Wolf-Rayet stars

Pollock A.M.T. 171, 135

The Andromeda galaxy in γ-rays

Özel, M.E., Berkhuijsen, E.M. 172, 378

Electron-positron jets from gamma-ray beams

Lovelace, R.V.E. 173, 237

The final COS-B database: in-flight calibration of sensitivity and instrumental background behaviour

Strong, A.W., Bloemen, J.B.G.M., Lebrun, F., Hermsen, W., Mayer-Hasselwander, H.A., Buccheri, R. 173, 418; 67, 283

A detailed analysis of the high energy gamma-ray emission from the Crab pulsar and nebula

Clear, J., Bennett, K., Buccheri, R., Grenier, I.A., Hermsen, W., Mayer-Hasselwander, H.A., Sacco, B. 174, 85

High-energy gamma-ray and hard X-ray observations of Cyg X-3

Hermsen, W., Bennett, K., Bloemen, J.B.G.M., Buccheri, R., Jansen, F.A., Mastichiadis, A., Mayer-Hasselwander, H.A., Özel, M.E., Pollock, A.M.T., Strong, A.W. 175, 141

The feasibility of periodicity searches in gamma-ray astronomy Buccheri, R., Özel, M.E., Sacco, B. 175, 353

Very high energy gamma-rays from the Vela pulsar

Bhat, P.N., Gupta, S.K., Ramana Murthy, P.V., Sreekantan, B.V., Tonwar, S.C., Vishwanath, P.R. 178, 242

Cosmic ray gradients in the Outer Galaxy

Mayer, C.J., Richardson, K.M., Rogers, M.J., Szabelski, J., Wolfendale, A.W. 180, 73

The identification of vignetted sources in coded aperture imaging

Stephen, J.B., Caroli, E., Di Cocco, G., Maggioli, P.P., Natalucci, L., Spizzichino, A. 185, 343

Gas dynamics; see Hydrodynamics and hydromagnetics

Grains; see Interstellar medium: dust; Interplanetary medium

Gravitation

A gravitational lens origin for AGN-variability? Consequences of micro-lensing

Schneider, P., Weiss, A. 171, 49

How far can observable relations determine a Robertson-Walker metric?

Ehlers, J., Rindler, W. 174, 1

A simple imaging procedure for gravitational lenses Schramm, T., Kayser, R. 174, 361

The sources of gravitational waves with continuous and discrete spectra

Lipunov, V.M., Postnov, K.A., Prokhorov, M.E. 176, L1

Light element production in Barker's cosmologies Domínguez-Tenreiro, R., Yepes, G. 177, 5

De Sitter-type of cosmological model in a five-dimensional theory of gravity with variable rest mass

Chatterjee, S. 179, 1

Primordial nucleosynthesis in the Brans-Dicke theory with a variable cosmological term

Arai, K., Hashimoto, M., Fukui, T. 179, 17

Apparent number density enhancement of quasars near foreground galaxies due to gravitational lensing. I. Amplification cross sections

Schneider, P. 179, 71

Apparent number density enhancement of quasars near foreground galaxies due to gravitational lensing. II. The amplification probability distribution and results

Schneider, P. 179, 80

The effect of a poloidal magnetic field on the stability of a rotating self-gravitating disc

Schmitz, F. 179, 167

The stability of differentially rotating self-gravitating gas clouds. II: Polytropic configurations

Schmitz, F., Ebert, R. 181, 41

Statistical gravitational lensing: influence of compact objects on the number counts of quasars

Schneider, P. 183, 189

Gravitational lensing effect on the fluctuations of the cosmic background radiation

Blanchard, A., Schneider, J. 184, 1

Further data on the blue ring-like structure in A 370

Soucail, G., Mellier, Y., Fort, B., Hammer, F., Mathez, G. 184, L7

The possibility of a single fragmentation law for the formation of different astronomical objects

Di Fazio, A., Capuzzo Dolcetta, R. 184, 263

Comments on smoothing cosmologies

Hemmerich, A. 185, 1

The modulation of neutrinos from SN 1987 A during stellar col-

de Jager, O.C. 185, L13

Herbig-Haro objects

Molecular hydrogen emission in Herbig-Haro complexes. II. The high latitude nebulosities HH 52/53/54

Sandell, G., Zealey, W.J., Williams, P.M., Taylor, K.N.R., Storey, J.M.V. 182, 237

The kinematic structure of the HH 24 complex derived from highresolution spectroscopy

Solf, J. 184, 322

HII regions; see Interstellar medium: HII regions

Hydrodynamics

Two-dimensional numerical models of the boundary layer of accretion disks in cataclysmic variables

Kley, W., Hensler, G. 172, 124

Condensation of small spherical non-gravitationally bound cool

Parravano, A. 172, 280

Jeans collapse in a turbulent medium

Bonazzola, S., Falgarone, E., Heyvaerts, J., Pérault, M., Puget, J.L. 172, 293

Influence of stellar evolution on the evolution of planetary nebulae. I. Numerical method and hydrodynamical structures

Schmidt-Voigt, M., Köppen, J. 174, 211

Influence of stellar evolution on the evolution of planetary nebulae. II. Confrontation of models with observations

Schmidt-Voigt, M., Köppen, J. 174, 223

The influence of O- and B-stars on star birth rate Nepveu, M. 175, 91

Stellar evolution with turbulent diffusion mixing. VI. The solar model, surface ⁷Li and ³He abundances, solar neutrinos and oscillations

Lebreton, Y., Maeder, A. 175, 99

Dynamical stability of differentially rotating bodies to non-axisymmetric perturbations

Fujimoto, M.Y. 176, 53

The formation of radiation-driven winds in bursting neutron stars: non-LTE models

Yahel, R.Z., Brinkmann, W., Braun, A. 176, 223

Rapidly rotating stars and the Be star phenomenon

Apparao, K.M.V., Antia, H.M., Chitre, S.M. 177, 198

Collisions of high-velocity clouds with the Milky Way: the formation and evolution of large-scale structures

Tenorio-Tagle, G., Franco, J., Bodenheimer, P., Różyczka, M. 179, 219

Acoustic waves in early-type stars. II. The modified equations and the numerical code

Wolf, B.E. 179, 371

A sufficient condition for stability of a rotating body Hanawa, T. 179, 383

Hydrodynamic models for the short-period, classical Cepheid, SU Cas

Aikawa, T., Antonello, E., Simon, N.R. 181, 25

The stability of differentially rotating self-gravitating gas clouds. II: Polytropic configurations

Schmitz, F., Ebert, R. 181, 41

The evolution of clumpy gas in young elliptical galaxies

Kunze, R., Loose, H.-H., Yorke, H.W. 182, 1

Non-spherical supernova remnants. IV. Sequential explosions in OB associations

Tenorio-Tagle, G., Bodenheimer P., Różyczka, M. 182, 120

Stationary shocks in accretion disks

Spruit, H.C. 184, 173

The dynamical instability of a rotating cylinder as a model for a Keplerian disk

Hanawa, T. 185, 160

Fluid simulation of comet P/Halley's ionosphere

Baumgärtel, K., Sauer, K. 187, 307

Anisotropic non-stationary gas flow dynamics in the coma of comet P/Halley

Kömle, N.I., Ip. W.-H. 187, 405

Improved gas-kinetic treatment of cometary water sublimation and recondensation: application to comet P/Halley

Crifo, J.F. 187, 438

Episodic mass loss in late-type stars due to acoustic wave packets

Cuntz, M. 188, L5

Some embarrassments in current treatments of convective overshooting

Renzini, A. 188, 49

A collapse model of the turbulent presolar nebula Tscharnuter, W.M. 188, 55

Hydromagnetics

Turbulent transport of magnetic fields. I. A simple mechanical model

Hoyng, P. 171, 348

Turbulent transport of magnetic fields. II. The role of fluctuations in kinematic theory

Hoyng, P. 171, 357

The Alfvén-gravity spectrum of an incompressible slab Hermans, D., Goossens, M. 172, 85

Accretion-driven jets from young stars

Kaburaki, O., Itoh, M. 172, 191

Viscous damping of Alfvén normal modes in non-uniform plasmas

Mok, Y. 172, 327

An αω-dynamo with an α-effect due to magnetostrophic waves Schmitt, D. 174, 281 The hydrodynamics of clouds overtaken by supernova remnants. II. Attrition shocks, condensation and ejection of clouds

Różyczka, M., Tenorio-Tagle, G. 176, 329

Generation of large-scale magnetic fields in spiral galaxies Baryshnikova, Y., Ruzmaikin, A., Sokoloff IV, D.D., Shukurov, A. 177, 27

Acoustic tube waves in the solar atmosphere. I. Magnesium and calcium line emission with complete redistribution

Ulmschneider, P., Muchmore, D., Kalkofen, W. 177, 292

The effect of a poloidal magnetic field on the stability of a rotating self-gravitating disc

Schmitz, F. 179, 167

The method of projected characteristics for the evolution of magnetic arches

Nakagawa, Y., Hu, Y.Q., Wu, S.T. 179, 354

Varying self-inductance and energy storage in a sheared force-free arcade

Zuccarello, F., Burm, H., Kuperus, M., Raadu, M., Spicer, D.S. 180, 218

The theory of magnetic coronal heating

Vekstein, G.E. 182, 324

Magnetic field and synchrotron radiation in mildly relativistic shocks

Courvoisier, T.J.-L., Camenzind, M. 183, 167

Disc accretion by magnetized neutron stars: a reassessment of the torque

Wang, Y.-M. 183, 257

The structure of ULF waves produced by a tethered satellite system.

Wright, A.N. 186, 354

Encounters with comets: discoveries and puzzles in cometary plasma physics

Galeev, A.A. 187, 12

Low-frequency magnetic field fluctuations in comet P/Halley's magnetosheath: Giotto observations

Glaßmeier, K.H., Neubauer, F.M., Acuña, M.H., Mariani, F. 187, 65

MHD waves detected by ICE at distances ≥28 10⁶ km from comet P/Halley: Cometary or solar wind origin?

Tsurutani, B.T., Brinca, A.L., Smith, E.J., Thorne, R.M., Scarf, F.L., Gosling, J.T., Ipavich, F.M. 187, 97

Hydromagnetic waves associated with cometary water group ions: Sakigake observation

Yumoto, K., Saito, T., Nakagawa, T. 187, 117

Giotto-IMS observations of ion-flow velocities and temperatures outside the magnetic cavity of comet P/Halley

Goldstein, B.E., Neugebauer, M., Balsiger, H., Drake, J., Fuselier, S.A., Goldstein, R., Ip, W.-H., Rettenmund, U., Rosenbauer, H., Schwenn, R., Shelley, E.G. 187, 174

Possible models on disturbances of the plasma tail of comet P/ Halley during the 1985-1986 apparition

Saito, T., Saito, K., Aoki, T., Yumoto, K. 187, 201

Structure and dynamics of the plasma tail of comet P/Halley. I. Knot event on December 31, 1985

Saito, T., Yumoto, K., Hirao, K., Minami, S., Saito, K., Smith, E. 187, 209

Structure and dynamics of the plasma tail of comet P/Halley. II. Kink event on January 10-11, 1986

Tomita, K., Saito, T., Minami, S. 187, 215

Unusual characteristics of electromagnetic waves excited by cometary newborn ions with large perpendicular energies

Brinca, A.L., Tsurutani, B.T. 187, 311

Cometary MHD and chemistry

Wegmann, R., Schmidt, H.U., Huebner, W.F., Boice, D.C. 187, 339

Image processing

Speckle interferometric observations of Pluto and its moon Charon on seven different nights

Baier, G., Weigelt, G. 174, 295

Automatic log spectrum restoration of atmospheric seeing Navarro, R., Santamaria, J., Gómez, R. 174, 344

Late-type galaxies. The shapes of the spiral arm filaments (Text in German)

Isserstedt, J., Schindler, R. 175, 23

First observations with the scanning Fabry-Perot interferometer CIGALE: the stellar wind bubble N 62 B in the Large Magellanic Cloud

Laval, A., Boulesteix, J., Georgelin, Y.P., Georgelin, Y.M., Marcelin, M. 175, 199

Optical long-baseline interferometry and aperture synthesis by speckle masking

Reinheimer, T., Weigelt, G. 176, L17

Maximum entropy method for polarized images Shevgaonkar, R.K. 176, 159

The nature of two anomalous structures observed in the dust tail of comet Bennett 1970 II: a possible Neck-Line Structure

Pansecchi, L., Fulle, M., Sedmak, G. 176, 358

High spatial resolution IR observations and variability of the nuclear region of NGC 1068: structure and nature of the inner 100 parsec

Chelli, A., Perrier, C., Cruz-González, I., Carrasco, L. 177, 51 Solar granulation power spectra from speckle interferometry von der Lühe, O., Dunn, R.B. 177, 265

Photon-counting detectors in time-resolved imaging mode: image recentring and selection algorithms

Nieto, J.-L., Llebaria, A., di Serego Alighieri, S. 178, 301 Multi-color photographic surface photometry of the Andromeda galaxy

Walterbos, R.A.M., Kennicutt, R.C., Jr. 178, 328; 69, 309 A new determination of the solar granulation contrast

Collados, M., Vázquez, M. 180, 223

Radio-interferometric imaging of weak objects in conditions of poor phase stability: the relationship between speckle masking and phase closure methods

Cornwell, T.J. 180, 269

Have circumstellar envelopes been detected around nearby M-dwarfs?

Mariotti, J.-M., Perrier, C., Lacombe, F. 182, L11

The objective function implicit in the CLEAN algorithm Marsh, K.A., Richardson, J.M. 182, 174

 \boldsymbol{B} and \boldsymbol{V} photometry of two distant galaxy clusters with 6 m telescope plates

Iannicola, G., Kalloghlian, A., Nanni, D., Vignato, A. 182, 189 Markarian 297 knots

Hecquet, J., Coupinot, G., Maucherat, A.J. 183, 13

A direct surface smoothing procedure for Fourier image reconstruction in radiophysics

Koch, I., Anderssen, R.S. 183, 170

A faint object processing software: description and testing *Infante*, L. **183**, 177

A study of the elongation of Abell clusters. I. A sample of 37 clusters studied earlier by Binggeli and Struble & Peebles

Rhee, G.F.R.N., Katgert, P. 183, 217

Deconvolution of a pre-outburst picture of SN 1987 A Heap, S.R., Lindler, D.J. 185, L10

Radio source structure from geodetic VLBI observations: 8 GHz multi-epoch maps of the quasar 4C 39.25

Tang, G., Rönnäng, B., Baath, L. 185, 87

The identification of vignetted sources in coded aperture imag-

Stephen, J.B., Caroli, E., Di Cocco, G., Maggioli, P.P., Natalucci, L., Spizzichino, A. 185, 343

Observations of the coma of comet P/Halley and the outburst of 1986 March 24-25 (UT)

Rettig, T.W., Kern, J.R., Ruchti, R., Baumbaugh, B., Baumbaugh, A.E., Knickerbocker, K.L., Dawe, J. 187, 249

Thermal infrared imaging of comet P/Halley
Campins, H., Telesco, C.M., Decher, R., Ramsey, B.D. 187,
601

Comet P/Halley near-nucleus phenomena in 1986 Larson, S., Sekanina, Z., Levy, D., Tapia, S., Senay, M. 187, 639

The sunward spike of Halley's comet Sekanina, Z., Larson, S.M., Emerson, G., Helin, E.F., Schmidt, R.E. 187, 645

Dust environment of comet P/Halley: a review Sekanina, Z. 187, 789

Comet P/Halley's nucleus and its activity
Keller, H.U., Delamere, W.A., Huebner, W.F., Reitsema, H.J.,
Schmidt, H.U., Whipple, F.L., Wilhelm, K., Curdt, W., Kramm,
R., Thomas, N., Arpigny, C., Barbieri, C., Bonnet, R.M.,
Cazes, S., Coradini, M., Cosmovici, C.B., Hughes, D.W., Jamar, C., Malaise, D., Schmidt, K., Schmidt, W.K.H., Seige, P.
187, 807

Evolution of comet P/Halley in early March 1986 as observed from Vega pictures

Abergel, A., Bertaux, J.L. 187, 829

The spatial distribution of dust jets seen during the Vega-2 flyby Sagdeev, R.Z., Smith, B., Szegö, K., Larson, S., Toth, I., Merényi, E., Avanesov, G.A., Krasikov, V.A., Shamis, V.A., Tarnapolski, V.I. 187, 835

Detailed analysis of a surface feature on comet P/Halley Schwarz, G., Craubner, H., Delamere, A., Göbel, M., Gonano, M., Huebner, W.F., Keller, H.U., Kramm, R., Mikusch, E., Reitsema, H., Whipple, F.L., Wilhelm, K. 187, 847

A morphological survey of emission line galaxies Tarrab, I. 188, 271; 71, 449

Infrared radiation

T Tauri stars and dust clouds in a region of the Gum nebula Pettersson, B. 171, 101

Optical and infrared observations of two oxygen-rich unidentified IRAS sources

Le Bertre, T., Epchtein, N. 171, 116

IRAS far-infrared colours of normal stars

Waters, L.B.F.M., Coté, J., Aumann, H.H. 172, 225

Stellar radius determination from IRAS 12 µm fluxes Perrin, M.-N., Karoji, H. 172, 235

A new infrared camera for the 2-5 μm range Monin, J.L., Vauglin, I., Sibille, F., Audaire, L. 172, 368

IRAS measurements of H II regions
Antonopoulou, E., Pottasch, S.R. 173, 108

IR reflection nebulae near molecular outflow sources Lenzen, R. 173, 124 Diagnostics of solar magnetic fluxtubes with the infrared line Fe1 λ 15648.54 Å

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 173, 167

A non-LTE study of the solar emission lines near 12 μm Lemke, M., Holweger, H. 173, 375

Observational constraints on the carriers of the ultraviolet extinction bump

Leene, A., Cox, P. 174, L1

Mid-infrared excess and ultraviolet extinction

Cox, P., Leene, A. 174, 203

Infrared photometry of comet P/Halley before perihelion Bouchet, P., Chalabaev, A., Danks, A., Encrenaz, T., Epchtein, N., Le Bertre, T. 174, 288

Far-infrared and optical properties of starburst galaxies Belfort, P., Mochkovitch, R., Dennefeld, M. 176, 1 IRAS 09371+1212: an icy evolved, mass-losing star with a unique IR spectrum

Forveille, T., Morris, M., Omont, A., Likkel, L. 176, L13

The opacity of the dust around the carbon star IRC+10216 Le Bertre, T. 176, 107

Study of IRAS observations of newly classified planetary nebulae

Iyengar, K.V.K. 176, 190; 68, 103

Rotational and vibrational synthetic spectra of linear parent molecules in comets

Crovisier, J. 176, 194; 68, 223

The radio to X-ray continuum emission of the quasar 3C 273 and its temporal variations

Courvoisier, T.J.-L., Turner, M.J.L., Robson, E.I., Gear, W.K., Staubert, R., Blecha, A., Bouchet, P., Falomo, P., Valtonen, M., Teräsranta, H. 176, 197

New detections of probable massive pre-main sequence stars in the southern galactic plane

Braz, M.A., Epchtein, N. 176, 245

Infrared photometry of SN 1987 A

Bouchet, P., Stanga, R., Le Bertre, T., Epchtein, N., Hamann, W.R., Lorenzetti, D. 177, L9

High spatial resolution IR observations and variability of the nuclear region of NGC 1068: structure and nature of the inner 100 parsec

Chelli, A., Perrier, C., Cruz-González, I., Carrasco, L. 177, 51
Polarimetric mapping of a new infrared reflection nebula GGD
27 IRS

Yamashita, T., Sato, S., Nagata, T., Suzuki, H., Hough, J.H., McLean, I.S., Garden, R., Gatley, I. 177, 258

IRAS observations of RSCVn systems

Verma, R.P., Iyengar, K.V.K., Rengarajan, T.N. 177, 346 Infrared photometry of the RS CVn binaries. V. The southern sytems HD 5303 and AD Cap

Antonopoulou, E. 177, 352; 68, 521

IRAS observations of the Dumbbell Nebula

Zhang, C.Y., Leene, A., Pottasch, S.R., Mo, J.E. 178, 247 A search for far-infrared (IRAS) emission from early-type stars at high galactic latitudes

Keenan, F.P., Conlon, E.S., Brown, P.J.F. 178, 317

Line and continuum radiation from the outer region of accretion discs in active galactic nuclei. I. Preliminary considerations *Collin-Souffrin, S.* 179, 60

Serpens - SVS 20: a new young infrared double source

Eiroa, C., Lenzen, R., Leinert, C., Hodapp, K.-W. 179, 171 The spatial distribution and spectral evolution of IRAS point sources around dense molecular clouds

Clark, F.O. 180, L1

Infrared emission from interstellar dust in the Andromeda Galaxy

Walterbos, R.A.M., Schwering, P.B.W. 180, 27

Near-infrared photometry of LSI +61°303

D'Amico, N., Lorenzetti, D., Massaro, E., Saraceno, P., Strafella, F. 180, 114

New CO and HCN sources associated with IRAS carbon stars Nguyen-Q-Rieu, Epchtein, N., Truong-Bach, Cohen, M. 180, 117

Ammonia in the galactic halo and the infrared cirrus Mebold, U., Heithausen, A., Reif, K. 180, 213

A further study of the relation of the radio-far-infrared in galaxies. I. Observations and data processing

Wunderlich, E., Klein, U., Wielebinski, R. 180, 281; 69, 487

OH observations of galactic radio H II regions Braz, M.A., Sivagnanam, P. 181, 19

Polarization investigations in four peculiar supergiants with high IR excess

Joshi, U.C., Deshpande, M.R., Sen, A.K., Kulshrestha, A. 181, 31

The influence of shape on the temperature of small graphite grains

Chlewicki, G. 181, 127

Ion-collision broadening of solar lines in the far-infrared and sub-millimeter spectrum

Hoang-Binh, D., Brault, P., Picart, J., Tran-Minh, N., Vallée, O. 181, 134

A model for the excitation of water in comets Bockelée-Morvan, D. 181, 169

Polarization and infrared colors of symbiotic stars Schulte-Ladbeck, R.E., Magalhães, A.M. 181, 213

IRAS observations of three edge-on galaxies Wainscoat, R.J., de Jong, T., Wesselius, P.R. 181, 225

Low-mass star formation in the high galactic latitude dark cloud L 1642

Sandell, G., Reipurth, B., Gahm, G. 181, 283

IRAS observations of CP stars Kroll. R. 181, 315

Have circumstellar envelopes been detected around nearby M-dwarfs?

Mariotti, J.-M., Perrier, C., Lacombe, F. 182, L11

Theoretical studies of the faint features in the $S_0(0)$ line of H_2 observed in the Voyager IRIS mission

Schaefer, J. 182, L40

Z CMa resolved at near infrared wavelengths: one more piece to the puzzle

Leinert, Ch., Haas, M. 182, L47

Constraints for models of Be stars derived from UV and IRAS observations

Lamers, H.J.G.L.M., Waters, L.B.F.M. 182, 80

Infrared photometry of late-type Wolf-Rayet stars

Williams, P.M., van der Hucht, K.A., Thé, P.S. 182, 91

Molecular hydrogen emission in Herbig-Haro complexes. II. The high latitude nebulosities HH 52/53/54

Sandell, G., Zealey, W.J., Williams, P.M., Taylor, K.N.R., Storey, J.M.V. 182, 237

The BVJK light curves of the short-period eclipsing binary CG Cygni

Bedford, D.K., Fuensalida, J.J., Arévalo, M.J. 182, 264

The 3.3 μm and 3.4 μm emission features in planetary nebulae Martin, W. 182, 290 Warm IRAS sources. I. A catalogue of AGN candidates from the point source catalog

de Grijp, M.H.K., Miley, G.K., Lub, J. 182, 362; 70, 95

A study of the silicate emission features of the IRAS low resolution spectra

Gal, O., de Muizon, M., Papoular, R., Pégourié, B. 183, 29 A search for non-stellar contributions to the optical and near-IR flux of RS CVn binaries. I. The cases of TY Pyx, UV Psc, RU Cnc and VV Mon

Busso, M., Scaltriti, F., Persi, P., Robberto, M., Silvestro, G. 183, 83

The IRAS cirrus and the diffuse ultraviolet background Jakobsen, P., de Vries, J.S., Paresce, F. 183, 335

Optical and near-infrared observations of IRAS galaxies. II Moorwood, A.F.M., Véron-Cetty, M.-P., Glass, I.S. 184, 63 IRAS and optical observations of the high-latitude dust cloud Lynds 1642

Laureijs, R.J., Mattila, K., Schnur, G. 184, 269

The spectrum of comet P/Halley from 3.0 to 4.0 µm

Danks, A.C., Encrenaz, T., Bouchet, P., Le Bertre, T., Chalabaev, A. 184, 329

Near-IR observations of Sharpless regions. I. S269, S271, S307 and S311 $\,$

Persi, P., Ferrari-Toniolo, M., Shivanandan, K., Spinoglio, L. 185, 356; 70, 437

Near-infrared spectral properties of star clusters and galactic nuclei

Bica, E., Alloin, D. 186, 49

Dust shells around Miras and OH/IR stars: interpretation of IRAS and other infrared measurements

Bedjin, P.J. 186, 136

Near-infrared excesses of barium stars

Hakkila, J., McNamara, B.J. 186, 255

An analysis of the emission features of the IRAS low-resolution spectra of carbon stars

Baron, Y., de Muizon, M., Papoular, R., Pégourié, B. 186, 271

Infrared radiation of very small dust grains in the Rho Ophiuchi region

Ryter, C., Puget, J.L., Pérault, M. 186, 312

Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 186, 362; 71, 39

The identification of galactic radio sources based on a comparison of radio-continuum and infrared emission

Fürst, E., Reich, W., Sofue, Y. 186, 362; 71, 63

Kinematic properties of the neutral gas outflow from comet P/ Halley

Larson, H.P., Mumma, M.J., Weaver, H.A. 187, 391

The spectrum of comet P/Halley between 0.9 and 2.5 µm Maillard, J.P., Crovisier, J., Encrenaz, T., Combes, M. 187, 398

Infrared investigation of water in comet P/Halley

Weaver, H.A., Mumma, M.J., Larson, H.P. 187, 411

The ortho-para ratio of water vapor in comet P/Halley

Mumma, M.J., Weaver, H.A., Larson, H.P. 187, 419

The $2.7 \, \mu m$ water band of comet P/Halley: interpretation of observations by an excitation model

Bockelée-Morvan, D., Crovisier, J. 187, 425

Detection of OH rotational emission from comet P/Halley in the far-infrared

Stacey, G.J., Lugten, J.B., Genzel, R. 187, 451

Search for methane in comet P/Halley

Drapatz, S., Larson, H.P., Davis, D.S. 187, 497

Detection of a new emission band at 2.8 µm in comet P/Halley

Tokunaga, A.T., Nagata, T., Smith, R.G. 187, 519

Thermal infrared imaging of comet P/Halley

Campins, H., Telesco, C.M., Decher, R., Ramsey, B.D. 187, 601

Low resolution mapping of comet P/Halley in the near-infrared Lázaro, C., Garzón, F., Arévalo, M.J. 187, 605

Infrared monitoring of comet P/Halley

Lorenzetti, D., Moneti, A., Stanga, R., Strafella, F. 187, 609

Airborne and groundbased spectrophotometry of comet

P/Halley from 5-13 μm

Bregman, J.D., Campins, H., Witteborn, F.C., Wooden, D.H., Rank, D.M., Allamandola, L.J., Cohen, M., Tielens, A.G.G.M. 187, 616

The near-infrared polarization and color of comet P/Halley Brooke, T.Y., Knacke, R.F., Joyce, R.R. 187, 621

The 3.2-3.6 µm emission features in comet P/Halley: spectral identifications and similarities

Knacke, R.F., Brooke, T.Y., Joyce, R.R. 187, 625

Airborne spectrophotometry of P/Halley from 16 to 30 μm Herter, T., Campins, H., Gull, G.E. 187, 629

Photometry of comet P/Halley from 40 to 160 µm

Campins, H., Joy, M., Harvey, P.M., Lester, D.F., Ellis, H.B.,

Jr. 187, 632

Airborne spectrophotometry of P/Halley from 20 to 65 µm Glaccum, W., Moseley, S.H., Campins, H., Loewenstein, R.F. 187, 635

Infrared emission from P/Halley's dust coma during March 1986

Hanner, M.S., Tokunaga, A.T., Golisch, W.F., Griep, D.M., Kaminski, C.D. 187, 653

Dust environment of comet P/Halley: a review Sekanina, Z. 187, 789

Temperature and size of the nucleus of comet P/Halley deduced from IKS infrared Vega-1 measurements

Emerich, C., Lamarre, J.M., Moroz, V.I., Combes, M., Sanko, N.F., Nikolsky, Y.V., Rocard, F., Gispert, R., Coron, N., Bibring, J.P., Encrenaz, T., Crovisier, J. 187, 839

Speckle observations of the ice feature in the young double source Serpens SVS 20

Eiroa, C., Leinert, C. 188, 46

 $\it Erratum:$ Valinhos 2.2 μm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 188, 269; 71, 411

Instruments; see also: Interferometry; Radiotelescopes; Space vehicles

A new infrared camera for the 2-5 µm range

Monin, J.L., Vauglin, I., Sibille, F., Audaire, L. 172, 368

High-resolution astronomical imaging by roll deconvolution of Space Telescope data

Müller, M., Weigelt, G. 175, 312

The IRAM 30-m millimeter radio telescope on Pico Veleta, Spain

Baars, J.W.M., Hooghoudt, B.G., Mezger, P.G., de Jonge, M.J. 175, 319

A multichannel multicolour photometer for high time resolution Barwig, H., Schoembs, R., Buckenmayer, C. 175, 327

Astronomical optics: zonal aberration correction. Laboratory experiments and extrapolations to space- and ground-based observations

Artzner, G. 175, 345

Polarimetry and imagery through uniaxial crystals. Application to solar observations with high spatial resolution

Semel, M. 178, 257

Radial velocities of galaxies in the cluster Klemola 22 from observations with OPTOPUS, the ESO multiple object spectroscopy facility

Cristiani, S., de Souza, R., D'Odorico, S., Lund, G., Quintana, H. 179, 108

The objective function implicit in the CLEAN algorithm Marsh, K.A., Richardson, J.M. 182, 174

Observations of anomalous refraction at radio wavelengths Altenhoff, W.J., Baars, J.W.M., Downes, D., Wink, J.E. 184, 381

The spectro-interferometer of the Arcetri Solar Tower

Cavallini, F., Ceppatelli, G., Righini, A., Meco, M., Paloschi, S., Tantulli, F. 184, 386

Polarimetry of grains in the coma of P/Halley. I. Observations Dollfus, A., Suchail, J.-L. 187, 669

Calibration of the DIDSY-IPM dust detector and application to other impact ionisation detectors on board the P/Halley probes

Göller, J.R., Grün, E., Maas, D. 187, 693

Interferometry

Circumnuclear star formation in the central region of the barred spiral galaxy NGC 1097

Hummel, E., van der Hulst, J.M., Keel, W.C. 172, 32

EVN and MERLIN observations of five superluminal radio sources

Pilbratt, G., Booth, R.S., Porcas, R.W. 173, 12

Investigation of a complete sample of flat spectrum radio sources from the S5 survey. II. Results

Eckart, A., Witzel, A., Biermann, P., Johnston, K.J., Simon, R., Schalinski, C., Kühr, H. 173, 217; 67, 121

Results of interferometric observations of the F-corona radial velocity field between 3 and 7 solar radii

Shcheglov, P.V., Shestakova, L.I., Ajmanov, A.K. 173, 383 Interferometric observations of the H₂O and OH maser emission

from S Persei
Diamond, P.J., Johnston, K.J., Chapman, J.M., Lane, A.P.,

Bowers, P.F., Spencer, J.H., Booth, R.S. 174, 95 Speckle interferometric observations of Pluto and its moon Charon on seven different nights

Baier, G., Weigelt, G. 174, 295

High-resolution astronomical imaging by roll deconvolution of Space Telescope data

Müller, M., Weigelt, G. 175, 312

A survey of the neutral atomic hydrogen in M 33

Deul, E.R., van der Hulst, J.M. 175, 360; 67, 509

Optical long-baseline interferometry and aperture synthesis by speckle masking

Reinheimer, T., Weigelt, G. 176, L17

Strong structural variability in the lobe-dominated radio galaxy 3 C 111

Götz, M.M.A., Alef, W., Preuss, E., Kellermann, K.I. 176,

The kinematics of H II regions. I. The velocity field of the Lagoon nebula (M8)

Hänel, A. 176, 338

The kinematics of H $\scriptstyle\rm II$ regions. II. The large-scale velocity field of M 42/43 and NGC 1977

Hänel, A. 176, 347

High spatial resolution IR observations and variability of the nuclear region of NGC 1068: structure and nature of the inner 100 parsec

Chelli, A., Perrier, C., Cruz-González, I., Carrasco, L. 177, 51 Solar granulation power spectra from speckle interferometry von der Lühe, O., Dunn, R.B. 177, 265

Speckle interferometric observations of the Wolf-Rayet star AS 431 and of early-type stars in Cyg OB 2

Lortet, M.C., Blazit, A., Bonneau, D., Foy, R. 180, 111

Radio-interferometric imaging of weak objects in conditions of poor phase stability: the relationship between speckle masking and phase closure methods

Cornwell, T.J. 180, 269

Have circumstellar envelopes been detected around nearby Mdwarfs?

Mariotti, J.-M., Perrier, C., Lacombe, F. 182, L11 Z CMa resolved at near infrared wavelengths: one more piece to the puzzle

Leinert, Ch., Haas, M. 182, L47

The objective function implicit in the CLEAN algorithm Marsh, K.A., Richardson, J.M. 182, 174

Radio source structure from geodetic VLBI observations: 8 GHz multi-epoch maps of the quasar 4C 39.25

Tang, G., Rönnäng, B., Baath, L. 185, 87

Speckle interferometric measurements of binary stars. IV Blazit, A., Bonneau, D., Foy, R. 186, 362; 71, 57

Accurate angular diameters and effective temperatures for eleven giants cooler than K0 by Michelson interferometry

Di Benedetto, G.P., Rabbia, Y. 188, 114

Intergalactic medium

The interstellar spectrum toward SN 1987 A

Vidal-Madjar, A., Andreani, P., Cristiani, S., Ferlet, R., Lanz, T., Vladilo, G. 177, L17

A search for diffuse neutral hydrogen in filaments of galaxies Altschuler, D.R., Davis, M.M., Giovanardi, C. 178, 16 A survey for H1 in voids

Hulsbosch, A.N.M. 180, 280; 69, 439

Interplanetary medium

Density and brightness distribution of cometary dust tails Richter, K., Keller H.U. 171, 317

The speeds of electrons that excite solar radio bursts of type III Dulk, G.A., Steinberg, J.L., Hoang, S., Goldman, M.V. 173, 366

Results of interferometric observations of the F-corona radial velocity field between 3 and 7 solar radii

Shcheglov, P.V., Shestakova, L.I., Ajmanov, A.K. 173, 383

Elastic-collisional coupling between protons and helium atoms of interstellar origin in the heliospheric interface

Chassefière, E., Bertaux, J.L. 174, 239

A note on the scattering of light from interplanetary dust particles

Sharma, S.K., Somerford, D.J. 174, 352

Localization of Io and non-Io sources of Jovian decameter emission

Boischot, A., Sastri, J.H., Zarka, P. 175, 287

Interpretation of F-corona radial velocity observations Shestakova, L.I. 175, 289 Heating of helium of interstellar origin through elastic collisions with solar wind protons inside the heliosphere

Chassefière, E., Bertaux, J.L. 176, 121

Filtering of the local interstellar medium at the heliopause *Bleszynski*, S. **180**, 201

A possible Neck-Line Structure in the dust tail of comet Halley Fulle, M. 181, L13

Some solar cycle phenomena related to the geomagnetic activity from 1868 to 1980. III. Quiet-days, fluctuating activity of the solar equatorial belt as the main origin of the solar wind flowing in the ecliptic plane

Simon, P.A., Legrand, J.P. 182, 329

A model of the solar wind turbulence from radio occultation experiments

Armand, N.A., Efimov, A.I., Yakovlev, O.I. 183, 135

Meteoroids from comet Bennett 1970II

Fulle, M. 183, 392

Solar modulation of galactic antiprotons

Perko, J.S. 184, 119

The structure of ULF waves produced by a tethered satellite system

Wright, A.N. 186, 354

Encounters with comets: discoveries and puzzles in cometary plasma physics

Galeev, A.A. 187, 12

The pick-up of cometary protons by the solar wind

Neugebauer, M., Lazarus, A.J., Altwegg, K., Balsiger, H., Goldstein, B.E., Goldstein, R., Neubauer, F.M., Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E. 187, 21

Alfvénic turbulence in the solar wind flow during the approach to comet P/Halley

Johnstone, A.D., Coates, A.J., Heath, J., Thomsen, M.F., Wilken, B., Jockers, K., Formisano, V., Amata, E., Winningham, J.D., Borg, H., Bryant, D.A. 187, 25

General features of comet P/Halley: solar wind interaction from plasma measurements

Rème, H., Sauvaud, J.A., d'Uston, C., Cros, A., Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Korth, A., Richter, A.K., Mendis, D.A. 187, 33

Waves in the magnetic field and solar wind flow outside the bow shock at comet P/Halley

Johnstone, A., Glassmeier, K., Acuna, M., Borg, H., Bryant, D., Coates, A., Formisano, V., Heath, J., Mariani, F., Musmann, G., Neubauer, F., Thomsen, M., Wilken, B., Winningham, J. 187, 47

Solar wind flow through the comet P/Halley bow shock

Coates, A.J., Johnstone, A.D., Thomsen, M.F., Formisano, V., Amata, E., Wilken, B., Jockers, K., Winningham, J.D., Borg, H., Bryant, D.A. 187, 55

Low-frequency magnetic field fluctuations in comet P/Halley's magnetosheath: Giotto observations

Glaßmeier, K.H., Neubauer, F.M., Acuña, M.H., Mariani, F. 187, 65

Plasma flow in the cometosheath of P/Halley during the encounter of Suisei

Takahashi, S., Terasawa, T., Mukai, T., Kitayama, M., Miyake, W., Hirao, K. 187, 94

MHD waves detected by ICE at distances ≥28 10⁶ km from comet P/Halley: Cometary or solar wind origin?

Tsurutani, B.T., Brinca, A.L., Smith, E.J., Thorne, R.M., Scarf, F.L., Gosling, J.T., Ipavich, F.M. 187, 97

Hydromagnetic waves associated with cometary water group ions: Sakigake observation

Yumoto, K., Saito, T., Nakagawa, T. 187, 117

Plasma properties from the upstream region to the cometopause of comet P/Halley: Vega observations

Verigin, M.I., Gringauz, K.I., Richter, A.K., Gombosi, T.I., Remizov, A.P., Szegö, K., Apáthy, I., Szemerey, I., Tátrallyay, M., Lezhen, L.A. 187, 121

Spatial distribution of water-group ions near comet P/Halley observed by Suisei

Mukai, T., Miyake, W., Terasawa, T., Kitayama, M., Hirao, K. 187, 129

The composition and radial dependence of cometary ions in the coma of comet P/Halley

Korth, A., Richter, A.K., Mendis, D.A., Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Mitchell, D.L., Rème, H., Sauvaud, J.A., d'Uston, C. 187, 149

Possible models on disturbances of the plasma tail of comet P/ Halley during the 1985–1986 apparition

Saito, T., Saito, K., Aoki, T., Yumoto, K. 187, 201

Structure and dynamics of the plasma tail of comet P/Halley. I. Knot event on December 31, 1985

Saito, T., Yumoto, K., Hirao, K., Minami, S., Saito, K., Smith, E. 187, 209

Structure and dynamics of the plasma tail of comet P/Halley. II. Kink event on January 10-11, 1986

Tomita, K., Saito, T., Minami, S. 187, 215

Structure and dynamics of plasma-tail condensations of comet P/ Halley 1986 and inferences on the structure and activity of the cometary nucleus

Celnik, W.E., Schmidt-Kaler, T. 187, 233

The cause of two plasma-tail disconnection events in comet P/Halley during the ICE-Halley radial period

Brosius, J.W., Holman, G.D., Niedner, M.B., Brandt, J.C., Slavin, J.A., Smith, E.J., Zwickl, R.D., Bame, S.J. 187, 267

Cometary MHD and chemistry

Wegmann, R., Schmidt, H.U., Huebner, W.F., Boice, D.C. 187, 339

The CO and N2 abundance in comet P/Halley

Eberhardt, P., Krankowsky, D., Schulte, W., Dolder, U., Lämmerzahl, P., Berthelier, J.J., Woweries, J., Stubbemann, U., Hodges, R.R., Hoffman, J.H., Illiano, J.M. 187, 481

Low resolution mapping of comet P/Halley in the near-infrared Lázaro, C., Garzón, F., Arévalo, M.J. 187, 605

Infrared monitoring of comet P/Halley

Lorenzetti, D., Moneti, A., Stanga, R., Strafella, F. 187, 609

Complex refractive index of grain material deduced from the visible polarimetry of comet P/Halley

Mukai, T., Mukai, S., Kikuchi, S. 187, 650

Polarimetry of grains in the coma of P/Halley. I. Observations Dollfus, A., Suchail, J.-L. 187, 669

Calibration of the DIDSY-IPM dust detector and application to other impact ionisation detectors on board the P/Halley probes

Göller, J.R., Grün, E., Maas, D. 187, 693

The dust distribution within the inner coma of comet P/Halley (1982i): encounter by Giotto's impact detectors

McDonnell, J.A.M., Alexander, W.M., Burton, W.M., Bussoletti, E., Evans, G.C., Evans, S.T., Firth, J.G., Grard, R.J.L., Green, S.F., Grun, E., Hanner, M.S., Hughes, D.W., Igenbergs, E., Kissel, J., Kuczera, H., Lindblad, B.A., Langevin, Y., Mandeville, J.-C., Nappo, S., Pankiewicz, G.S.A., Perry, C.H., Schwehm, G.H., Sekanina, Z., Stevenson, T.J., Turner, R.F., Weishaupt, U., Wallis, M.K., Zarnecki, J.C. 187, 719

Spatial and mass distribution of low-mass dust particles ($m < 10^{-10}$ g) in comet P/Halley's coma

Vaisberg, O.L., Smirnov, V., Omelchenko, A., Gorn, L., Iovlev, M. 187, 753

First statistical analysis of 5000 mass spectra of cometary grains obtained by PUMA 1 (Vega-1) and PIA (Giotto) impact ionization mass spectrometers in the compressed modes

Langevin, Y., Kissel, J., Bertaux, J.-L., Chassefière, E. 187, 761

Systematics of the "CHON" and other light-element particle populations in comet P/Halley

Clark, B.C., Mason, L.W., Kissel, J. 187, 779

Charging of dust particles in comets and in interplanetary space Notni, P., Tiersch, H. 187, 796

Evaporating grains in P/Halley's coma

Wallis, M.K., Rabilizirov, R., Wickramasinghe, N.C. 187, 801

The P/Halley meteor showers in 1985-1986

Hajduková, M., Hajduk, A., Cevolani, G., Formiggini, C. 187, 919

Meteoroids from comet P/Halley. The comet's mass production and age

Hajduk, A. 187, 925

Meteor contribution by short-period comets *Štohl*, J. **187**, 933

A simplified cascade model for M.H.D. turbulence Carbone, V., Veltri, P. 188, 239

Interstellar medium: abundances

Stellar evolution with turbulent diffusion mixing. VII. Application to the determination of primordial ³He abundance

Schatzman, E. 172, 1

Some inferences on chemical evolution from a study of irregular and blue compact galaxies

Vigroux, L., Stasińska, G., Comte, G. 172, 15

Deuterated C₃H₂ as a clue to deuterium chemistry

Gerin, M., Wootten, H.A., Combes, F., Boulanger, F., Peters III, W.L., Kuiper, T.B.H., Encrenaz, P.J., Bogey, M. 173, L1

IRAS measurements of H II regions

Antonopoulou, E., Pottasch, S.R. 173, 108

Observations of extended planetary nebulae. I. NGC 7293: the Helix Nebula

Leene, A., Pottasch, S.R. 173, 145

Clumps in IC 348: temperature and density profiles of dense cores

Bachiller, R., Guilloteau, S., Kahane, C. 173, 324

A multilevel study of ammonia in star-forming regions. I. Maser and thermal emission toward W 51 IRS 2

Mauersberger, R., Henkel, C., Wilson, T.L. 173, 352

Elastic-collisional coupling between protons and helium atoms of interstellar origin in the heliospheric interface

Chassefière, E., Bertaux, J.L. 174, 239

Si

Extreme possible variations of the deuterium abundance within the Galaxy

Delbourgo-Salvador, P., Audouze, J., Vidal-Madjar, A. 174, 365

The O6.5f?p star HD 148937 and its interstellar environment Leitherer, C., Chavarria-K., C. 175, 208

The interstellar spectrum toward SN 1987 A

Vidal-Madjar, A., Andreani, P., Cristiani, S., Ferlet, R., Lanz, T., Vladilo, G. 177, L17

Interstellar lines in SN 1987 A observed with the IUE

de Boer, K.S., Grewing, M., Richtler, T., Wamsteker, W., Gry, C., Panagia, N. 177, L37

Interstellar absorption lines in the spectra of θ -Crateris and 14 Canum Venaticorum

Skuppin, R., Bianchi, L., de Boer, K.S., Grewing, M. 177, 228 The warm C $\scriptstyle\rm II$ region between the hot ionized region S 64 = W 40 and the cold molecular cloud G 28.74 + 3.52

Vallée, J.P. 178, 237

Acetone in interstellar space

Combes, F., Gerin, M., Wootten, A., Wlodarczak, G., Clausset, F., Encrenaz, P.J. 180, L13

C₆H: astronomical study of its fine and hyperfine structure Cernicharo, J., Guélin, M., Menten, K.M., Wálmsley, C.M. 181. L1

Sulfur in IRC+10216

Cernicharo, J., Guélin, M., Hein, H., Kahane, C. 181, L9

How abundant are complex interstellar molecules? Millar, T.J., Leung, C.M., Herbst, E. 183, 109

Detection of interstellar CH and CH⁺ towards SN 1987 A Magain, P., Gillet, D. 184, L5

Hydrogen recombination lines: a model of the temperature and density in Orion A

Wilson, T.L., Jäger, B. 184, 291

VLA observations of the 6 cm and 2 cm lines of H₂CO in the direction of W 3(OH)

Dickel, H.R., Goss, W.M. 185, 271

High resolution spectrum of the starburst galaxy Tololo 1924-416 (= ESO 338-IG 04)

Iye, M., Ulrich, M.-H., Peimbert, M. 186, 84

The detection of extragalactic methanol

Henkel, C., Jacq, T., Mauersberger, R., Menten, K.M., Steppe, H. 188, L1

A search for interstellar NaH and MgH in diffuse clouds Czarny, J., Felenbok, P., Roueff, E. 188, 155

Interstellar medium: bubbles

 $H\alpha$ survey of M33 with the six-meter telescope: morphology of the general diffuse emission, evidence for a chaotic medium of bubbles and filaments

Courtès, G., Petit, H., Sivan, J.-P., Dodonov, S., Petit, M. 174, 28

Ara OB1: A stellar association formed by the action of an energetic event?

Arnal, E.M., Cersosimo, J.C., May, J., Bronfman, L. 174, 78
Submillimetre CO observations of the Cepheus A outflow

Richardson, K.J., White, G.J., Avery, L.W., Woodsworth, A.W. 174, 197

The O6.5f?p star HD 148937 and its interstellar environment Leitherer, C., Chavarria-K., C. 175, 208

Hollow H_{II} regions. II. Mechanism for wind energy dissipation and diffuse X-ray emission

Dorland, H., Montmerle, T. 177, 243

Further observations of the peculiar galactic radio source BG 2107+49

Higgs, L.A., Vallée, J.P., Albinson, J.S., Batrla, W., Goss, W.M. 181, 351

On the nature of 623+71: a cataclysmic binary surrounded by a bow-shock-like emission nebula

Krautter, J., Klaas, U., Radons, G. 181, 373

Non-spherical supernova remnants. IV. Sequential explosions in OB associations

Tenorio-Tagle, G., Bodenheimer P., Różyczka, M. 182, 120

Interstellar medium: clouds: general

T Tauri stars and dust clouds in a region of the Gum nebula Pettersson, B. 171, 101

The fragmentation of molecular clouds: I. The mass-radius-velocity dispersion relations

Chièze, J.P. 171, 225

Condensation of small spherical non-gravitationally bound cool clouds

Parravano, A. 172, 280

Jeans collapse in a turbulent medium

Bonazzola, S., Falgarone, E., Heyvaerts, J., Pérault, M., Puget, J.L. 172, 293

Mapping of a molecular complex in a northern spiral arm of M 31

Casoli, F., Combes, F., Stark, A.A. 173, 43

Radiative transfer in a spherical dust cloud. I. Exact results for isotropic scattering

van de Hulst, H.C. 173, 115

High dispersion spectroscopy of point sources and extended objects with an echelle/CCD spectrograph

McKeith, C.D., Bates, B., Catney, M., Barnett, E., Jorden, P.R., van Breda, I.G. 173, 204

CO observations of IRAS Circular No.9 sources 19520+2759 and 01133+6434: regions of star formation

Arquilla, R., Kwok, S. 173, 271

Clumps in IC 348: temperature and density profiles of dense cores

Bachiller, R., Guilloteau, S., Kahane, C. 173, 324

Erratum: The relation between carbon monoxide emission and visual extinction in the local Perseus dark clouds

Bachiller, R., Cernicharo, J. 174, 368

Fossil nebulae in the context of active galaxies. I. Time evolution of a single cloud

Binette, L., Robinson, A. 177, 11

The interstellar spectrum toward SN 1987 A

Vidal-Madjar, A., Andreani, P., Cristiani, S., Ferlet, R., Lanz, T., Vladilo, G. 177, L17

High degree of fragmentation in the nebulae SMC:N 83 and N 84 and discovery of two O stars

Testor, G., Lortet, M.-C. 178, 25

Kinematical origin of the dark clouds in Taurus and of some nearby galactic clusters

Olano, C.A., Pöppel, W.G.L. 179, 202

Dark clouds in front of globular clusters

Sandell, G., Stevens, M.A., Heiles, C. 179, 255

Cosmic ray gradients in the Outer Galaxy

Mayer, C.J., Richardson, K.M., Rogers, M.J., Szabelski, J., Wolfendale, A.W. 180, 73

Low-mass star formation in the high galactic latitude dark cloud L 1642

Sandell, G., Reipurth, B., Gahm, G. 181, 283

Metals in IRC+10216: detection of NaCl, AlCl and KCl, and tentative detection of AlF

Cernicharo, J., Guélin, M. 183, L10

The fragmentation of molecular clouds. II. Gravitational stability of low-mass molecular cloud cores

Chièze, J.-P., Pineau des Forêts, G. 183, 98

Molecular clouds in the vicinity of the semicircular supernova remnant G 109.1 – 1.0

Tatematsu, K., Fukui, Y., Nakano, M., Kogure, T., Ogawa, H., Kawabata, K. 184, 279

The vicinity of Omicron Per

Bachiller, R., Cernicharo, J., Goldsmith, P., Omont, A. 185, 297

The interaction of the UV burst of Supernova 1987 A with a nearby cloud: a possible explanation of the speckle images

Hillebrandt, W., Höflich, P., Schmidt, H.U., Truran, J.W. 186, L9

Giant-scale supernova remnants. The role of differential galactic rotation and the formation of molecular clouds

Tenorio-Tagle, G., Palouš, J. 186, 287

Interstellar clouds: morphological information from projected shapes

David, M., Verschueren, W. 186, 295

Composition measurements and the history of cometary matter Geiss, J. 187, 859

Rotational equilibrium of C_2 in diffuse interstellar clouds. I. Static model: the case of ζ Ophiuchi

Le Bourlot, J., Roueff, E., Viala, Y. 188, 137

A search for interstellar NaH and MgH in diffuse clouds Czarny, J., Felenbok, P., Roueff, E. 188, 155

Interstellar medium: clouds: high velocity

Collisions of high-velocity clouds with the Milky Way: the formation and evolution of large-scale structures

Tenorio-Tagle, G., Franco, J., Bodenheimer, P., Różyczka, M. 179, 219

Interstellar medium: clouds: individual

NH₃ observations of the HH1-HH2 region Martin-Pintado, J., Cernicharo, J. 176, L1

The physical and chemical state of HCL 2 Cernicharo, J., Guélin, M. 176, 299

Physical conditions in the IRAS 16293-2422 parent cloud Menten, K.M., Serabyn, E., Güsten, R., Wilson, T.L. 177, L57

B 355

The molecular counterparts of the submillimeter compact sources in L 1551 and B 335

Walmsley, C.M., Menten, K.M. 179, 231

CVI

Interstellar absorption lines in the spectra of θ -Crateris and 14 Canum Venaticorum

Skuppin, R., Bianchi, L., de Boer, K.S., Grewing, M. 177, 228

Cep A

Submillimetre CO observations of the Cepheus A outflow Richardson, K.J., White, G.J., Avery, L.W., Woodsworth, A.W. 174, 197

G 28.74+52

The warm C II region between the hot ionized region S64 = W40 and the cold molecular cloud G28.74 + 3.52

Vallée, J.P. 178, 237

G 34.3+0.2

A multilevel study of ammonia in star forming regions. II. G 34.3+0.2, a new "hot core"

Henkel, C., Wilson, T.L., Mauersberger, R. 182, 137

. 134

A search for CH abundance variations towards L 134 Jacq, T., Baudry, A., Despois, D., Gérard, E., Johansson, L.E.B. 173, 347

L 1551

The molecular counterparts of the submillimeter compact sources in L 1551 and B 335

Walmslev, C.M., Menten, K.M. 179, 231

Millimetre and submillimetre molecular line observations of the southwest lobe of L 1551: evidence of a shell structure

Rainey, R., White, G.J., Richardson, K.J., Griffin, M.J., Cronin, N.J., Monteiro, T.S., Hilton, J. 179, 237

L 1642

Low-mass star formation in the high galactic latitude dark cloud I. 1642

Sandell, G., Reipurth, B., Gahm, G. 181, 283

IRAS and optical observations of the high-latitude dust cloud Lynds 1642

Laureijs, R.J., Mattila, K., Schnur, G. 184, 269

L 1709

Formaldehyde absorption and visual extinction in the dark cloud L 1709 in the *ρ* Ophiuchi region *Minn, Y.K., Greenberg, J.M.* 184, 315

M 17 SW

CO(J=4-3) submillimeter map of M 17 SW Schulz, A., Krügel, E. 171, 297

NGC 2264

NGC 2264: a molecular line study Krügel, E., Güsten, R., Schulz, A., Thum, C. 185, 283

NGC 7538

Deuterated water in Orion-KL and NGC 7538

Henkel, C., Mauersberger, R., Wilson, T.L., Snyder, L.E.,
Menten, K.M., Wouterloot, J.G.A. 182, 299

Orion KL

Deuterated water in Orion-KL and NGC 7538 Henkel, C., Mauersberger, R., Wilson, T.L., Snyder, L.E., Menten, K.M., Wouterloot, J.G.A. 182, 299

Sgr A

A molecular counterpart to the galactic center arc Serabyn, E., Güsten, R. 184, 133

W 3(OH)

VLA observations of the 6 cm and 2 cm lines of H₂CO in the direction of W 3(OH)

Dickel, H.R., Goss, W.M. 185, 271

ζOph

A search for interstellar NaH and MgH in diffuse clouds Czarny, J., Felenbok, P., Roueff, E. 188, 155

ξ Per

A search for interstellar NaH and MgH in diffuse clouds Czarny, J., Felenbok, P., Roueff, E. 188, 155

θ-Crt

Interstellar absorption lines in the spectra of θ -Crateris and 14 Canum Venaticorum

Skuppin, R., Bianchi, L., de Boer, K.S., Grewing, M. 177, 228

Q Oph

Infrared radiation of very small dust grains in the Rho Ophiuchi region

Ryter, C., Puget, J.L., Pérault, M. 186, 312

Interstellar medium: dust

Dust formation in stellar winds. III. Self-consistent models for dust-driven winds around C-stars

Gail, H.P., Sedlmayr, E. 171, 197

The structure and dynamics of young supernova remnants: new constraints from observations of shock-heated dust

Braun, R. 171, 233

The reddening and distance of Scorpius X-1

Knude, J. 171, 289

Radiative transfer in a spherical dust cloud. I. Exact results for isotropic scattering

van de Hulst, H.C. 173, 115

IR reflection nebulae near molecular outflow sources Lenzen, R. 173, 124

Correlation of broad and narrow diffuse band features: evidence of molecular carriers

Chlewicki, G., de Groot, M.S., van der Zwet, G.P., Greenberg, J.M., Alvarez, P.P., Mampaso, A. 173, 131

Observations of extended planetary nebulae. I. NGC 7293: the Helix Nebula

Leene, A., Pottasch, S.R. 173, 145

Observational constraints on the carriers of the ultraviolet extinction bump

Leene, A., Cox, P. 174, L1

Mid-infrared excess and ultraviolet extinction

Cox, P., Leene, A. 174, 203

Herbig-Haro emission in two bipolar reflection nebulae Neckel, T., Staude, H.J., Sarcander, M., Birkle, K. 175, 231

Dust formation in stellar winds. V. The minimum mass loss rate for dust-driven winds

Gail, H.-P., Sedlmayr, E. 177, 186

Dark clouds in front of globular clusters

Sandell, G., Stevens, M.A., Heiles, C. 179, 255

A survey of formaldehyde in high galactic latitudes

Heithausen, A., Mebold, U., de Vries, H.W. 179, 263

Effect of photoionization of PAH molecules on the heating of H_I interstellar gas

d'Hendecourt, L.B., Léger, A. 180, L9

Infrared emission from interstellar dust in the Andromeda Galaxy

Walterbos, R.A.M., Schwering, P.B.W. 180, 27

Ammonia in the galactic halo and the infrared cirrus

Mebold, U., Heithausen, A., Reif, K. 180, 213

Detection of the hydrocarbon ring molecule C_3H_2 in the planetary nebula NGC 7027

Cox, P., Güsten, R., Henkel, C. 181, L19

Polarization investigations in four peculiar supergiants with high IR excess

Joshi, U.C., Deshpande, M.R., Sen, A.K., Kulshrestha, A. 181, 31

CO and NH₃ detection of the cone in NGC 2264

Pagani, L.P., Nguyen-Q-Rieu 181, 112

The influence of shape on the temperature of small graphite grains

Chlewicki, G. 181, 127

Photoprocessing of H_2S in interstellar grain mantles as an explanation for S_2 in comets

Grim, R.J.A., Greenberg, J.M. 181, 155

The 3.3 µm and 3.4 µm emission features in planetary nebulae *Martin, W.* **182**, 290

A study of the silicate emission features of the IRAS low resolution spectra

Gal, O., de Muizon, M., Papoular, R., Pégourié, B. 183, 29

Tabulated extinction efficiencies for various types of submicron amorphous carbon grains in the wavelength range $1000\,\text{Å}\text{-}300\,\mu\text{m}$

Bussoletti, E., Colangeli, L., Borghesi, A., Orofino, V. 183, 187; 70, 257

The IRAS cirrus and the diffuse ultraviolet background Jakobsen, P., de Vries, J.S., Paresce, F. 183, 335

IRAS and optical observations of the high-latitude dust cloud Lynds 1642

Laureijs, R.J., Mattila, K., Schnur, G. 184, 269

Formaldehyde absorption and visual extinction in the dark cloud L 1709 in the ϱ Ophiuchi region

Minn, Y.K., Greenberg, J.M. 184, 315

The kinematical structure of the extended emission-line region of the early-type Seyfert-galaxy Mrk $3\,$

Wagner, S.J. 185, 77

Variations in UV extinction in galactic associations and perpendicular to the galactic plane

Kiszkurno-Koziej, E., Lequeux, J. 185, 291

Photometry and spectroscopy of stars in the region of a highly reddened cluster in Ara

Westerlund, B.E. 185, 354; 70, 311

An analysis of the emission features of the IRAS low-resolution spectra of carbon stars

Baron, Y., de Muizon, M., Papoular, R., Pégourié, B. 186, 271

Infrared radiation of very small dust grains in the Rho Ophiuchi region

Ryter, C., Puget, J.L., Pérault, M. 186, 312

The dependence of mass resolution and sensitivity of the PUMA instrument on the energy spread of ions produced by hypervelocity impacts

Sagdeev, R.Z., Kissel, J., Evlanov, E.N., Fomenkova, M.N., Inogamov, N.A., Khromov, V.N., Managadze, G.G., Prilutski, O.F., Shapiro, V.D., Shutyaev, I.Y., Zubkov, B.V. 187, 179
The CO and N₂ abundance in comet P/Halley

Eberhardt, P., Krankowsky, D., Schulte, W., Dolder, U., Lämmerzahl, P., Berthelier, J.J., Woweries, J., Stubbemann, U., Hodges, R.R., Hoffman, J.H., Illiano, J.M. 187, 481

The 3.2-3.6 µm emission features in comet P/Halley: spectral identifications and similarities

Knacke, R.F., Brooke, T.Y., Joyce, R.R. 187, 625

Dust environment of comet P/Halley: a review Sekanina, Z. 187, 789

Composition measurements and the history of cometary matter Geiss, J. 187, 859 Comet P/Halley dust characteristics: a comparison between Orionid and Eta Aquarid meteor observations and those from the flyby spacecraft

Hughes, D.W. 187, 879

Speckle observations of the ice feature in the young double source Serpens SVS $20\,$

Eiroa, C., Leinert, C. 188, 46

Interstellar medium: extinction

Extinction and reddening towards compact Galactic H II regions Cox, P., Deharveng, L., Caplan, J. 171, 277

The reddening and distance of Scorpius X-1 Knude. J. 171, 289

A search for CH abundance variations towards L134

Jacq, T., Baudry, A., Despois, D., Gérard, E., Johansson, L.E.B. 173, 347

Observational constraints on the carriers of the ultraviolet extinction bump

Leene, A., Cox, P. 174, L1

Mid-infrared excess and ultraviolet extinction

Cox. P., Leene, A. 174, 203

Extinction curves and intrinsic colours in local and distant OB complexes

Krelowski, J., Strobel, A. 175, 186

Far-infrared and optical properties of starburst galaxies Belfort, P., Mochkovitch, R., Dennefeld, M. 176, 1

Photometric properties of SN 1987 A and other sources in the same field

Panagia, N., Gilmozzi, R., Clavel, J., Barylak, M., Gonzalez Riesta, R., Lloyd, C., Sanz Fernandez de Corboda, L., Wamsteker, W. 177, L25

Geneva photometric boxes. V. The far-ultraviolet extinction in the solar neighbourhood

Nicolet, B. 177, 233

Interstellar extinction and polarimetric properties of the star HD 200775

Pfau, W., Piirola, V., Reimann, H.-G. 179, 134

Dark clouds in front of globular clusters

Sandell, G., Stevens, M.A., Heiles, C. 179, 255

Infrared emission from interstellar dust in the Andromeda Galaxy

Walterbos, R.A.M., Schwering, P.B.W. 180, 27

A study of the silicate emission features of the IRAS low resolution spectra

Gal, O., de Muizon, M., Papoular, R., Pégourié, B. 183, 29 Tabulated extinction efficiencies for various types of submicron amorphous carbon grains in the wavelength range 1000 Å-300 µm

Bussoletti, E., Colangeli, L., Borghesi, A., Orofino, V. 183, 187; 70, 257

IRAS and optical observations of the high-latitude dust cloud Lynds 1642

Laureijs, R.J., Mattila, K., Schnur, G. 184, 269

Formaldehyde absorption and visual extinction in the dark cloud L 1709 in the ϱ Ophiuchi region

Minn, Y.K., Greenberg, J.M. 184, 315

Variations in UV extinction in galactic associations and perpendicular to the galactic plane

Kiszkurno-Koziej, E., Lequeux, J. 185, 291

Strömgren photometry of open clusters. III. NGC2323, NGC5662

Schneider, H. 188, 272; 71, 531

Interstellar medium: general

Condensation of small spherical non-gravitationally bound cool clouds

Parravano, A. 172, 280

The Andromeda galaxy in γ-rays

Özel, M.E., Berkhuijsen, E.M. 172, 378

Deuterated C3H2 as a clue to deuterium chemistry

Gerin, M., Wootten, H.A., Combes, F., Boulanger, F., Peters III, W.L., Kuiper, T.B.H., Encrenaz, P.J., Bogey, M. 173, L1

Area spectroscopy of the core of 30 Doradus

Clayton, C.A. 173, 137

Analysis of the Mg II resonance lines in the spectrum of Sirius Freire Ferrero, R., Gouttebroze, P., Talavera, A. 173, 315

A catalogue of early-type galaxies with emission lines

Bettoni, D., Buson, L.M. 173, 420; 67, 341

Designation and nomenclature for astronomical sources of radi-

Dickel, H.R., Lortet, M.-C., de Boer, K.S. 176, 190; 68, 75

Fossil nebulae in the context of active galaxies. I. Time evolution of a single cloud

Binette, L., Robinson, A. 177, 11

Infrared emission from interstellar dust in the Andromeda Galaxy

Walterbos, R.A.M., Schwering, P.B.W. 180, 27

Filtering of the local interstellar medium at the heliopause Bleszynski, S. 180, 201

Structure and kinematics of stellar wind bubbles

Hanami, H., Sakashita, S. 181, 343

Properties of supernova remnants at known distances. II. The effect of ambient density on number-diameter relations Berkhuijsen, E.M. 181, 398

Detections of diffuse interstellar bands towards the SN 1987 A in the Large Magellanic Cloud

Vladilo, G., Crivellari, L., Molaro, P., Beckman, J.E. 182,

A study of UV spectra of ζ Aur/VV Cep stars. X. Mass-loss of α Sco A from high-resolution IUE spectra of α Sco B

Hagen, H.-J., Hempe, K., Reimers, D. 184, 256

Chromospheric $Mg \Pi h$ and k emissions free of interstellar contamination: velocity structure in late-type dwarfs and giants

Vladilo, G., Molaro, P., Crivellari, L., Foing, B.H., Beckman, J.E., Genova, R. 185, 233

Neutral hydrogen absorption measurements of ten pulsars and the electron density in the galactic plane Weisberg, J.M., Rankin, J.M., Boriakoff, V. 186, 307

Interstellar medium: HII regions: general

Eight-colour photometry of stars associated with selected Sharpless H II regions at I^{II} ≈ 190°: S 252, S 254, S 255, S 257, and S 261 Chavarria-K, C., de Lara, E., Hasse, I. 171, 216

Southern H_{II} regions: an extensive study of radio recombination line emission

Caswell, J.L., Haynes, R.F. 171, 261

Extinction and reddening towards compact Galactic H II regions Cox, P., Deharveng, L., Caplan, J. 171, 277

IRAS measurements of H II regions

Antonopoulou, E., Pottasch, S.R. 173, 108

Area spectroscopy of the core of 30 Doradus

Clayton, C.A. 173, 137

An objective-prism survey of emission-line objects in M 33 and IC 1613

Lequeux, J., Meyssonnier, N., Azzopardi, M. 173, 218; 67, 169

Imaging of the ionized gas and stars in emission line galaxies Durret, F., Bergeron, J. 173, 219

 $H\alpha$ survey of M33 with the six-meter telescope: morphology of the general diffuse emission, evidence for a chaotic medium of bubbles and filaments

Courtès, G., Petit, H., Sivan, J.-P., Dodonov, S., Petit, M. 174, 28

VBLUW photometry of emission nebulae Greve, A., van Genderen, A.M. 174, 243

The velocity field of the outer Galaxy in the Southern Hemisphere. II. CO observations of galactic nebulae

Brand, J., Blitz, L., Wouterloot, J.G.A., Kerr, F.J. 176, 188; 68,

High resolution 5 GHz flux-densities of sources in M 31 Israel, F.P. 176, 191; 68, 109

Implications of the UV observations of SN 1987 A

Fransson, C., Grewing, M., Cassatella, A., Panagia, N., Wamsteker, W. 177, L33

Hollow H $\scriptstyle\rm II$ regions. II. Mechanism for wind energy dissipation and diffuse X-ray emission

Dorland, H., Montmerle, T. 177, 243

Thermal and nonthermal radio emission from the Small Magellanic Cloud

Loiseau, N., Klein, U., Greybe, A., Wielebinski, R., Haynes, R.F. 178, 62

Kinematics of ionized gas in the center of the Andromeda nebula (M 31)

Boulesteix, J., Georgelin, Y.P., Lecoarer, E., Marcelin, M., Monnet, G. 178, 91

The fractal dimension of star-forming sites in galaxies Feitzinger, J.V., Galinski, T. 179, 249

Infrared emission from interstellar dust in the Andromeda Galaxy

Walterbos, R.A.M., Schwering, P.B.W. 180, 27

Multifrequency radio continuum observations of extended galactic objects. II. Eleven objects from the 2695 MHz Effelsberg galactic plane survey

Fürst, E., Handa, T., Reich, W., Reich, P., Sofue, Y. 180, 279; 69, 403

OH observations of galactic radio H II regions

Braz, M.A., Sivagnanam, P. 181, 19

Further observations of the peculiar galactic radio source BG 2107+49

Higgs, L.A., Vallée, J.P., Albinson, J.S., Batrla, W., Goss, W.M. 181, 351

Dust emission and star formation in compact H II regions Chini, R., Krügel, E., Wargau, W. 181, 378

Hydrogen recombination lines: a model of the temperature and density in Orion A

Wilson, T.L., Jäger, B. 184, 291

The kinematical structure of the extended emission-line region of the early-type Seyfert-galaxy Mrk $3\,$

Wagner, S.J. 185, 77

Near-IR observations of Sharpless regions. I. S269, S271, S307 and S311

Persi, P., Ferrari-Toniolo, M., Shivanandan, K., Spinoglio, L. 185, 356; 70, 437

Star formation in the nucleus of the galaxy NGC 5253 González-Riestra, R., Rego, M., Zamorano, J. 186, 64

The identification of galactic radio sources based on a comparison of radio-continuum and infrared emission

Fürst, E., Reich, W., Sofue, Y. 186, 362; 71, 63

Interstellar medium: HII regions: individual

The interaction of the UV burst of Supernova 1987 A with a nearby cloud: a possible explanation of the speckle images

Hillebrandt, W., Höflich, P., Schmidt, H.U., Truran, J.W. 186,

CH Cyg

Optical confirmation and high-resolution spectroscopy of the radio jet from the symbiotic star CH Cygni
Solf, J. 180, 207

G34.3+0.2

Molecular line observations of the H II region G34.3+0.2

Matthews, N., Little, L.T., Macdonald, G.H., Andersson, M.,
Davies, S.R., Riley, P.W., Dent, W.R.F., Vizard, D. 184, 284

G 317.0+0.3

Galactic structure around longitude $l=317^{\circ}$ determined from CI-GALE observations

Georgelin, Y.M., Boulesteix, J., Georgelin, Y.P., Laval, A., Marcelin, M. 174, 257

Gum nebula

T Tauri stars and dust clouds in a region of the Gum nebula Pettersson, B. 171, 101

HII G 320.5-1.4

The region of the supernova remnant MSH 15-52 revisited: A new thermal H II region, H II G 320.5-1.4

Lortet, M.-C., Georgelin, Y.P., Georgelin, Y.M. 180, 65

M 8

The kinematics of H II regions. I. The velocity field of the Lagoon nebula (M8)

Hänel, A. 176, 338

M 17

CO J=3-2 observations of M 17: the interaction of an expanding shock front with molecular clouds

Rainey, R., White, G.J., Gatley, I., Hayashi, S.S., Kaifu, N., Griffin, M.J., Monteiro, T.S., Cronin, N.J., Scivetti, A. 171, 252

IR observations of a star-forming region in M 17 Felli, M., Stanga, R. 175, 193

M 42

The kinematics of H II regions. II. The large-scale velocity field of M 42/43 and NGC 1977

Hänel, A. 176, 347

M 43

The kinematics of H $\scriptstyle\rm II$ regions. II. The large-scale velocity field of M 42/43 and NGC 1977

Hänel, A. 176, 347

NIIC

The LMC H II regions N 11 C and E and their stellar contents Heydari-Malayeri, M., Niemela, V.S., Testor, G. 184, 300

N 11 E

The LMC H II regions N 11 C and E and their stellar contents Heydari-Malayeri, M., Niemela, V.S., Testor, G. 184, 300

NGC 1977

The kinematics of H II regions. II. The large-scale velocity field of M42/43 and NGC 1977

Hänel, A. 176, 347

NGC 6164/5

The O6.5f?p star HD 148937 and its interstellar environment Leitherer, C., Chavarria-K., C. 175, 208

Orion

Continuum versus line polarization at the center of the Orion ne-

Leroy, J.L., Le Borgne, J.F. 186, 322

Orion A

Hydrogen recombination lines: a model of the temperature and density in Orion A

Wilson, T.L., Jäger, B. 184, 291

S 54

A 300 pc thermal spur associated with the H II region S 54 Müller, P., Reif, K., Reich, W. 183, 327

S 64

The warm C II region between the hot ionized region S 64 = W 40 and the cold molecular cloud G 28.74 + 3.52 *Vallée, J.P. 178, 237

S 106

Observations of cold dust in S 106

Mezger, P.G., Chini, R., Kreysa, E., Wink, J. 182, 127

S 152

Extinction and reddening towards compact Galactic H II regions Cox, P., Deharveng, L. Caplan, J. 171, 277

S 156

Extinction and reddening towards compact Galactic H II regions Cox, P., Deharveng, L., Caplan, J. 171, 277

S 201

S 201: an H $\scriptstyle\rm II$ region produced by an ionization front eroding a molecular cloud

Felli, M., Hjellming, R.M., Cesaroni, R. 182, 313

S 269

Extinction and reddening towards compact Galactic H II regions Cox, P., Deharveng, L., Caplan, J. 171, 277

Sgr B2

VLA hydrogen and helium 76 α line observations of Sagittarius B2

Roelfsema, P.R., Goss, W.M., Whiteoak, J.B., Gardner, F.F., Pankonin, V. 175, 219

SMC:N 83

High degree of fragmentation in the nebulae SMC:N 83 and N 84 and discovery of two O stars

Testor, G., Lortet, M.-C. 178, 25

SMC:N 84

High degree of fragmentation in the nebulae SMC:N 83 and N 84 and discovery of two O stars

Testor, G., Lortet, M.-C. 178, 25

W3

Carbon radio recombination line observations of W3 Roelfsema, P.R., Goss, W.M., Wilson, T.L. 174, 232

30 Dor

Area spectroscopy of the core of 30 Doradus Clayton, C.A. 173, 137

Interstellar medium: kinematics and dynamics of

The fragmentation of molecular clouds: I. The mass-radius-velocity dispersion relations

Chièze, J.P. 171, 225

Jeans collapse in a turbulent medium

Bonazzola, S., Falgarone, E., Heyvaerts, J., Pérault, M., Puget, J.L. 172, 293

Galactic structure around longitude $l=317^{\circ}$ determined from CI-GALE observations

Georgelin, Y.M., Boulesteix, J., Georgelin, Y.P., Laval, A., Marcelin, M. 174, 257

A survey of the neutral atomic hydrogen in M 33 Deul, E.R., van der Hulst, J.M. 175, 360; 67, 509

The physical and chemical state of HCL 2 Cernicharo, J., Guélin, M. 176, 299

The kinematics of H II regions. I. The velocity field of the Lagoon nebula (M 8)

Hänel, A. 176, 338

The kinematics of H $\scriptstyle\rm II$ regions. II. The large-scale velocity field of M 42/43 and NGC 1977

Hänel, A. 176, 347

Interstellar absorption lines in the spectra of θ -Crateris and 14 Canum Venaticorum

Skuppin, R., Bianchi, L., de Boer, K.S., Grewing, M. 177, 228 Kinematics and physical parameters of neutral hydrogen in the inner Galaxy

Rohlfs, K., Kreitschmann, J. 178, 95

Echelle and spectropolarimetric observations of the η Carinae nebulosity

Meaburn, J., Wolstencroft, R.D., Walsh, J.R. 181, 333

Further observations of the peculiar galactic radio source BG 2107+49

Higgs, L.A., Vallée, J.P., Albinson, J.S., Batrla, W., Goss, W.M. 181, 351

The fragmentation of molecular clouds. II. Gravitational stability of low-mass molecular cloud cores

Chièze, J.-P., Pineau des Forêts, G. 183, 98

Extended ionized nebulosities in the galaxies Mk 1, Mk 3, Mk 348 and the quasar $4\,\mathrm{C}$ 37.43

Bergeron, J., Durret, F. 184, 93

A comparative study of galactic radial velocity fields

Feitzinger, J.V., Spicker, J. 184, 122

The kinematic structure of the HH 24 complex derived from highresolution spectroscopy

Solf, J. 184, 322

Interstellar medium: magnetic field

A polarimetric study of the Mon R 2 star-forming region Hodapp, K.-W. 172, 304

Thermal and nonthermal radio emission from the Small Magellanic Cloud

Loiseau, N., Klein, U., Greybe, A., Wielebinski, R., Haynes, R.F. 178, 62

Magnetic field strengths in molecular clouds

Crutcher, R.M., Kazès, I., Troland, T.H. 181, 119

Multi-frequency radio continuum observations of NGC 5236 (M83)

Sukumar, S., Klein, U., Gräve, R. 184, 71

The magnetic field in M 51

Beck, R., Klein, U., Wielebinski, R. 186, 95

Observation of cosmic ray positrons in the region from 5 to 50 GeV

Golden, R.L., Stephens, S.A., Mauger, B.G., Badhwar, G.D., Daniel, R.R., Horan, S., Lacy, J.L., Zipse, J.E. 188, 145

Interstellar medium: molecules

T Tauri stars and dust clouds in a region of the Gum nebula *Pettersson, B.* 171, 101

CO J=3-2 observations of M 17: the interaction of an expanding shock front with molecular clouds

Rainey, R., White, G.J., Gatley, I., Hayashi, S.S., Kaifu, N., Griffin, M.J., Monteiro, T.S., Cronin, N.J., Scivetti, A. 171, 252

CO (J=4-3) submillimeter map of M 17 SW Schulz, A., Krügel, E. 171, 297

Limits on the cool gas content of NGC 1275 and M 87 Jaffe, W. 171, 378

Detection of the hyperfine structure of the C₅H radical Cernicharo, J., Guélin, M., Walmsley, C.M. 172, L5

Deuterated ammonia in the Orion hot core

Walmsley, C.M., Hermsen, W., Henkel, C., Mauersberger, R., Wilson, T.L. 172, 311

Deuterated C₃H₂ as a clue to deuterium chemistry

Gerin, M., Wootten, H.A., Combes, F., Boulanger, F., Peters III, W.L., Kuiper, T.B.H., Encrenaz, P.J., Bogey, M. 173, L1

Correlation of broad and narrow diffuse band features: evidence of molecular carriers

Chlewicki, G., de Groot, M.S., van der Zwet, G.P., Greenberg, J.M., Alvarez, P.P., Mampaso, A. 173, 131

Cloud temperatures from ammonia observations Kuiper, T.B.H. 173, 209

High resolution ¹²CO observations of the central parts of the interacting galaxy NGC 3628

Boissé, P., Casoli, F., Combes, F. 173, 229

CO observations of IRAS Circular No. 9 sources 19520+2759 and 01133+6434: regions of star formation

Arquilla, R., Kwok, S. 173, 271

Clumps in IC 348: temperature and density profiles of dense cores

Bachiller, R., Guilloteau, S., Kahane, C. 173, 324

Molecular line observations of IC 443. The interaction of a molecular cloud and an interstellar shock

White, G.J., Rainey, R., Hayashi, S.S., Kaifu, N. 173, 337 A multilevel study of ammonia in star-forming regions. I. Maser and thermal emission toward W 51 IRS 2

Mauersberger, R., Henkel, C., Wilson, T.L. 173, 352

Submillimetre CO observations of the Cepheus A outflow Richardson, K.J., White, G.J., Avery, L.W., Woodsworth, A.W. 174, 197

Erratum: The relation between carbon monoxide emission and visual extinction in the local Perseus dark clouds

Bachiller, R., Cernicharo, J. 174, 368

Detection of a heavy radical in IRC+10216: The hexatriynyl radical C₆H?

Guélin, M., Cernicharo, J., Kahane, C., Gomez-Gonzalez, J., Walmsley, C.M. 175, L5

NH₃ observations of the HH1-HH2 region Martin-Pintado, J., Cernicharo, J. 176, L1 OH emission and absorption in bipolar flows Clark, F.O., Turner, B.E. 176, 114

The physical and chemical state of HCL 2 Cernicharo, J., Guélin, M. 176, 299

The formation of interstellar molecular lines in a turbulent velocity field with finite correlation length

Albrecht, M.A., Kegel, W.H. 176, 317

Physical conditions in the IRAS 16293-2422 parent cloud Menten, K.M., Serabyn, E., Güsten, R., Wilson, T.L. 177, L57

High angular resolution CO mapping of the high velocity gas associated with HL/XZ Tau and V 645 Cygni (GL 2789)

Torrelles, J.M., Anglada, G., Rodríguez, L.F., Cantò, J., Barral, J.F. 177, 171

The molecular counterparts of the submillimeter compact sources in L 1551 and B 335

Walmsley, C.M., Menten, K.M. 179, 231

Millimetre and submillimetre molecular line observations of the southwest lobe of L 1551: evidence of a shell structure

Rainey, R., White, G.J., Richardson, K.J., Griffin, M.J., Cronin, N.J., Monteiro, T.S., Hilton, J. 179, 237

A survey of formaldehyde in high galactic latitudes Heithausen, A., Mebold, U., de Vries, H.W. 179, 263

Effect of photoionization of PAH molecules on the heating of H1 interstellar gas

d'Hendecourt, L.B., Léger, A. 180, L9

Acetone in interstellar space

Combes, F., Gerin, M., Wootten, A., Wlodarczak, G., Clausset, F., Encrenaz, P.J. 180, L13

Photochemistry and molecular ions in carbon-rich circumstellar envelopes

Glassgold, A.E., Mamon, G.A., Omont, A., Lucas, R. 180, 183
Ammonia in the galactic halo and the infrared cirrus

Mebold, U., Heithausen, A., Reif, K. 180, 213

C₆H: astronomical study of its fine and hyperfine structure Cernicharo, J., Guélin, M., Menten, K.M., Walmsley, C.M. 181, L1

Sulfur in IRC+10216

Cernicharo, J., Guélin, M., Hein, H., Kahane, C. 181, L9

Detection of the hydrocarbon ring molecule C_3H_2 in the planetary nebula NGC 7027 $\,$

Cox, P., Güsten, R., Henkel, C. 181, L19

Photoprocessing of H_2S in interstellar grain mantles as an explanation for S_2 in comets

Grim, R.J.A., Greenberg, J.M. 181, 155

A theoretical study of the $H_3^+\!+\!CO$ protonation process. I. The formation of HCO^+

Talbi, D., Pauzat, F. 181, 394

New doublets in IRC+10216: Vibrationally excited C₄H? Guélin, M., Cernicharo, J., Navarro, S., Woodward, D.R., Gottlieb, C.A., Thaddeus, P. 182, L37

A multilevel study of ammonia in star forming regions. II. G 34.3+0.2, a new "hot core"

Henkel, C., Wilson, T.L., Mauersberger, R. 182, 137

Searches for interstellar and circumstellar metal oxides and chlorides

Millar, T.J., Elldér, J., Hjalmarson, A., Olofsson, H. 182, 143 Molecular hydrogen emission in Herbig-Haro complexes. II. The high latitude nebulosities HH 52/53/54

Sandell, G., Zealey, W.J., Williams, P.M., Taylor, K.N.R., Storey, J.M.V. 182, 237

The 3.3 µm and 3.4 µm emission features in planetary nebulae *Martin, W.* **182**, 290

Deuterated water in Orion-KL and NGC 7538

Henkel, C., Mauersberger, R., Wilson, T.L., Snyder, L.E.,
Menten, K.M., Wouterloot, J.G.A. 182, 299

How abundant are complex interstellar molecules? Millar, T.J., Leung, C.M., Herbst, E. 183, 109

Chemical modelling of molecular sources. V. IRC + 10216 Nejad, L.A.M., Millar, T.J. 183, 279

Detection of interstellar CH and CH+ towards SN 1987 A Magain, P., Gillet, D. 184, L5

A molecular counterpart to the galactic center arc Serabyn, E., Güsten, R. 184, 133

Formaldehyde absorption and visual extinction in the dark cloud L 1709 in the ρ Ophiuchi region

Minn, Y.K., Greenberg, J.M. 184, 315

Rotationally excited OH in megamaser galaxies Henkel, C., Güsten, R., Baan, W.A. 185, 14

NGC 2264: a molecular line study

Krügel, E., Güsten, R., Schulz, A., Thum, C. 185, 283

The vicinity of Omicron Per

Bachiller, R., Cernicharo, J., Goldsmith, P., Omont, A. 185, 297

Centimeter and millimeter recombination lines from W3 (OH): Expansion or champagne flow?

Wilson, T.L., Mauersberger, R., Brand, J., Gardner, F.F. 186, L5

The spectral hallmark of a contracting protostellar fragment Anglada, G., Rodríguez, L.F., Cantó, J., Estalella, R., López, R. 186, 280

Water vapor masers associated with young visible stars Rodriguez, L.F., Haschick, A.D., Torrelles, J.M., Myers, P.C. 186, 319

The detection of extragalactic methanol

Henkel, C., Jacq, T., Mauersberger, R., Menten, K.M., Steppe, H. 188, L1

Rotational equilibrium of C_2 in diffuse interstellar clouds. I. Static model: the case of ζ Ophiuchi

Le Bourlot, J., Roueff, E., Viala, Y. 188, 137

Interstellar medium: planetary nebulae; see Planetary nebulae

Interstellar medium: reflexion nebulae: general

Eight-colour photometry of stars associated with selected Sharpless H II regions at $I^{\rm II} \simeq 190^\circ$: S 252, S 254, S 255, S 257, and S 261 Chavarria-K, C., de Lara, E., Hasse, I. 171, 216

IR reflection nebulae near molecular outflow sources Lenzen, R. 173, 124

The velocity field of the outer Galaxy in the Southern Hemisphere. II. CO observations of galactic nebulae

Brand, J., Blitz, L., Wouterloot, J.G.A., Kerr, F.J. 176, 188; 68,

Interstellar medium: reflexion nebulae: individual

Boomerang Nebula

Herbig-Haro emission in two bipolar reflection nebulae Neckel, T., Staude, H.J., Sarcander, M., Birkle, K. 175, 231

GGD 27

Polarimetric mapping of a new infrared reflection nebula GGD 27 IRS

Yamashita, T., Sato, S., Nagata, T., Suzuki, H., Hough, J.H., McLean, I.S., Garden, R., Gatley, I. 177, 258

Mon R 2

A polarimetric study of the Mon R 2 star-forming region Hodapp, K.-W. 172, 304

NGC 2264

CO and NH₃ detection of the cone in NGC 2264 Pagani, L.P., Nguyen-Q-Rieu 181, 112

NGC 7023

Interstellar extinction and polarimetric properties of the star HD 200775

Pfau, W., Piirola, V., Reimann, H.-G. 179, 134

PV Cep

Herbig-Haro emission in two bipolar reflection nebulae Neckel, T., Staude, H.J., Sarcander, M., Birkle, K. 175, 231

Interstellar medium: shells; see Interstellar medium: bubbles

Interstellar medium: supernova remnants; see Supernovae and supernova remnants

Lines: formation; see also: Radiation transfer

Improved non-LTE Balmer-line profiles for hot stars Herrero, A. 171, 189

Anomalous Zeeman effect and its influence on the line absorption and dispersion coefficients

Mathys, G., Stenflo, J.O. 171, 368

Cyclotron line formation in a hot plasma including Compton cooling

Riffert, H. 172, 241

A non-LTE study of the solar emission lines near 12 μm Lemke, M., Holweger, H. 173, 375

Line formation in the winds of Herbig Ae/Be stars. The Hα line Catala, C., Kunasz, P.B. 174, 158

Multidimensional radiative transfer in stratified atmospheres. IV. Radiative cooling by LTE and non-LTE spectral lines

Trujillo-Bueno, J., Kneer, F. 174, 183

Analysis of solar eclipse data: spicule model in the middle chromosphere

Cuny, Y. 175, 243

Anomalous Zeeman effect: moments and expansion coefficients Mathys, G., Stenflo, J.O. 175, 361; 67, 557

Anomalous Zeeman effect: moments and expansion coefficients Mathys, G., Stenflo, J.O. 175, 361; 67, 557

The formation of interstellar molecular lines in a turbulent velocity field with finite correlation length

Albrecht, M.A., Kegel, W.H. 176, 317

Inversion of line profile disturbances. A non-linear method applied to solar Ca $\scriptstyle\rm II$ lines

Mein, P., Mein, N., Malherbe, J.M., Dame, L. 177, 283

Acoustic tube waves in the solar atmosphere. I. Magnesium and calcium line emission with complete redistribution

Ulmschneider, P., Muchmore, D., Kalkofen, W. 177, 292

Linear polarization of resonance lines in the absence of magnetic fields. I. Slabs of finite optical thickness

Faurobert, M. 178, 269

Line and continuum radiation from the outer region of accretion discs in active galactic nuclei. I. Preliminary considerations

Collin-Souffrin, S. 179, 60

An LTE analysis of the solar photospheric Ti1 and Cr1 spectra: evidence for non-LTE in excitation

Blackwell, D.E., Booth, A.J., Menon, S.L.R., Petford, A.D. 180, 229

Effects of dust on the formation of lines in an expanding spherical medium

Peraiah, A., Varghese, B.A., Rao, M.S. 180, 278; 69, 345
Transfer of resonant line photons in spherically accelerating envelopes

Beckwith, S., Natta, A. 181, 57

Multidimensional radiative transfer in stratified atmospheres. V. Energy transport by radiation

Kneer, F., Trujillo-Bueno, J. 183, 91

Line profiles from moving spherical shells

Bertout, C., Magnan, C. 183, 319

Formation of the hydrogen spectrum in quiescent prominences: one-dimensional models with standard partial redistribution

Heinzel, P., Gouttebroze, P., Vial, J.-C. 183, 351
Formation of low ionization lines in active galactic nuclei Joly, M. 184, 33

SiIV line ratios in laboratory plasmas: a comparison of experimental data and theoretical computations

Finkenthal, M., Yu, T.L., Allen, S.L., Huang, L.K., Lippmann, S., Moos, H.W., Stratton, B.C., Dufton, P.L., Kingston, A.E. 184, 337

NLTE models for cocoon stars

Höflich, P., Wehrse, R. 185, 107

Kinematic structure of OH/IR stars

Sun, J., Kwok, S. 185, 258

Probabilistic interpretation of radiative transfer. I. The $\sqrt{\varepsilon}$ -law *Hubeny, I.* **185**, 332

Probabilistic interpretation of radiative transfer. II. Rybicki equation

Hubeny, I. 185, 336

Erratum: Anomalous Zeeman effect: moments and expansion coefficients

Mathys, G., Stenflo, J.O. 185, 358; 70, 142

Improved NLTE profiles of He II lines in hot stars including their overlap with hydrogen

Herrero, A. 186, 231

Singly ionized iron as a diagnostic of stellar envelopes. I. The methods

Friedjung, M., Muratorio, G. 188, 100

Lines: identification

Deuterated C₁H₂ as a clue to deuterium chemistry

Gerin, M., Wootten, H.A., Combes, F., Boulanger, F., Peters III, W.L., Kuiper, T.B.H., Encrenaz, P.J., Bogey, M. 173, L1 Observations of magnetic hydrogen lines in the white dwarf GD 229

Östreicher, R., Seifert, W., Ruder, H. Wunner, G. 173, L15 Identification of forbidden lines from the NI-like ions SiVIII, SX and ArXII

Doyle, J.G. 173, 408

The ultraviolet spectrum of the peculiar emission-line star GG Carinae: the line identifications

Brandi, E., Gosset, E. 176, 194; 68, 283

Synthetic spectra of cool, helium-rich white dwarfs with different metal abundances

Zeidler-K.T., E.-M. 177, 351; 68, 469

Identification lists of the far UV spectra of 7 solar chemical composition main sequence stars in the spectral range B2-B9.5

Ramella, M., Castelli, F., Malagnini, M.L., Morossi, C., Pasian, F. 178, 322; 69, 1

Acetone in interstellar space

Combes, F., Gerin, M., Wootten, A., Wlodarczak, G., Clausset, F., Encrenaz, P.J. 180, L13

C₆H: astronomical study of its fine and hyperfine structure Cernicharo, J., Guélin, M., Menten, K.M., Walmsley, C.M. 181, L1

Sulfur in IRC+10216

Cernicharo, J., Guélin, M., Hein, H., Kahane, C. 181, L9

An extension to the wavelength coincidence statistics for spectral line identification

Ansari, S.G. 181, 328

New doublets in IRC+10216: Vibrationally excited C₄H? Guélin, M., Cernicharo, J., Navarro, S., Woodward, D.R., Gottlieb, C.A., Thaddeus, P. 182, L37

Silicon absorption in UV spectra of ApSi stars Artru, M.-C., Lanz, T. 182, 273

Deuterated water in Orion-KL and NGC 7538

Henkel, C., Mauersberger, R., Wilson, T.L., Snyder, L.E., Menten, K.M., Wouterloot, J.G.A. 182, 299

Metals in IRC+10216: detection of NaCl, AlCl and KCl, and tentative detection of AlF

Cernicharo, J., Guélin, M. 183, L10

The Fe II emission in the UV spectrum of CH Cyg Marsi, C., Selvelli, P.L. 186, 365; 71, 153

Kinematic properties of the neutral gas outflow from comet P/

Larson, H.P., Mumma, M.J., Weaver, H.A. 187, 391

Infrared investigation of water in comet P/Halley

Weaver, H.A., Mumma, M.J., Larson, H.P. 187, 411

Rotational structure of the (2,0) Phillips band of C_2 in comet P/ Halley

Appenzeller, I., Münch, G. 187, 465

Lines: profile

Center-to-limb variation of Stokes profiles and the diagnostics of solar magnetic fluxtubes

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 171, 305

Anomalous Zeeman effect and its influence on the line absorption and dispersion coefficients

Mathys, G., Stenflo, J.O. 171, 368

Stellar granulation. I. The observability of stellar photospheric convection

Dravins, D. 172, 200

Stellar granulation. II. Stellar photospheric line asymmetries Dravins, D. 172, 211

Simple estimates for Stark broadening of ion lines in stellar plasmas

Dimitrijević, M.S., Konjević, N. 172, 345

Revisited mass-loss rates for the nuclei of the planetary nebulae NGC 6210, NGC 6826 and NGC 6543: the first order moment W_1 of subordinate line profiles

Hutsemékers, D., Surdej, J. 173, 101

Interpretation of shifts and asymmetries of Fe1 lines in solar facular areas

Cavallini, F., Ceppatelli, G., Righini, A. 173, 155

5-min oscillations in the wings and bisectors of solar photospheric Fe I lines

Cavallini, F., Ceppatelli, G., Righini, A., Alamanni, N. 173,

Diagnostics of solar magnetic fluxtubes with the infrared line Fe I λ 15648.54 Å

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 173, 167

Computed spectral line variations of oblique non-radial pulsa-

Baade, D., Weiss, W.W. 173, 217; 67, 147

High-resolution emission-line spectroscopy of Be stars. II. Fe $\scriptstyle\rm II$ and other weak emission lines

Hanuschik, R.W. 173, 299

Analysis of the Mg II resonance lines in the spectrum of Sirius Freire Ferrero, R., Gouttebroze, P., Talavera, A. 173, 315

Identification of forbidden lines from the N1-like ions Si VIII, Sx and ArxII

Doyle, J.G. 173, 408

Semi-empirical models of a quiescent prominence

Zhang, Q.Z., Fang, C. 175, 277

Spurious variation of photospheric magnetic flux

Grossmann-Doerth, U., Pahlke, K.-D., Schüssler, M. 176, 139
Geometry of the mass-outflows around broad absorption line

QSOs and formation of the complex Lyα+N v line profile Surdej, J., Hutsemékers, D. 177, 42

Inversion of line profile disturbances. A non-linear method applied to solar Ca II lines

Mein, P., Mein, N., Malherbe, J.M., Dame, L. 177, 283

Ion-collision broadening of solar lines in the far-infrared and sub-millimeter spectrum

Hoang-Binh, D., Brault, P., Picart, J., Tran-Minh, N., Vallée, O. 181, 134

The $H\alpha$ velocity structure during the first month of SN 1987 A in the LMC

Hanuschik, R.W., Dachs, J. 182, L29

Stark broadening trends along homologous sequences

Dimitrijević, M.S., Mihajlov, A.A., Popović, M.M. 182, 360; 70, 57

Line profiles from moving spherical shells

Bertout, C., Magnan, C. 183, 319

The spectro-interferometer of the Arcetri Solar Tower

Cavallini, F., Ceppatelli, G., Righini, A., Meco, M., Paloschi, S., Tantulli, F. 184, 386

Spectral features of the B2e star EW Lac before and during the variable shell phase

Hubert, A.M., Floquet, M., Chauville, J., Chambon, M.T. 185, 357; 70, 443

Erratum: Anomalous Zeeman effect: moments and expansion coefficients

Mathys, G., Stenflo, J.O. 185, 358; 70, 142

High resolution spectrum of the starburst galaxy Tololo 1924-416 (= ESO 338-IG 04)

Iye, M., Ulrich, M.-H., Peimbert, M. 186, 84

Broad emission line profiles in Seyfert-1 galaxies. I. Evidence for a disk and a wind in Mkn 335

van Groningen, E. 186, 103

Additional constraints on cool-disk models of Be stars based on long observational sequences in the visual range

Hubert, A.M., Floquet, M., Chambon, M.T. 186, 213

The spectral hallmark of a contracting protostellar fragment Anglada, G., Rodríguez, L.F., Cantó, J., Estalella, R., López, R. 186, 280

Observations of the coma of comet P/Halley and the outburst of 1986 March 24-25 (UT)

Rettig, T.W., Kern, J.R., Ruchti, R., Baumbaugh, B., Baumbaugh, A.E., Knickerbocker, K.L., Dawe, J. 187, 249

Kinematic properties of the neutral gas outflow from comet P/Hallev

Larson, H.P., Mumma, M.J., Weaver, H.A. 187, 391

Temporal variations of solar spectral line profiles induced by the 5-minute photospheric oscillation

Gomez, M.T., Marmolino, C., Roberti, G., Severino, G. 188, 169

Luminosity function, mass function

Red stars in the Fornax dwarf galaxy

Westerlund, B.E., Edvardsson, B., Lundgren, K. 178, 41

Biased galaxies and non-linear correlations

Schaeffer, R. 180, L5

Evolutionary constraints for young stellar clusters. I. The luminosity function of H-burning stars

Brocato, E., Castellani, V. 182, 36

The local radio luminosity function of galaxies

Toffolatti, L., Franceschini, A., De Zotti, G., Danese, L. 184,

Mass function of stars in the solar neighbourhood Rana, N.C. 184, 104

The possibility of a single fragmentation law for the formation of different astronomical objects

Di Fazio, A., Capuzzo Dolcetta, R. 184, 263

The initial mass function for massive stars: a comparison between the total H α and ultraviolet fluxes of a sample of spiral and irregular galaxies

Buat, V., Donas, J., Deharveng, J.M. 185, 33

Star formation in the nucleus of the galaxy NGC 5253

González-Riestra, R., Rego, M., Zamorano, J. 186, 64

Comet P/Halley dust characteristics: a comparison between Orionid and Eta Aquarid meteor observations and those from the flyby spacecraft

Hughes, D.W. 187, 879

CCD photometry of resolved dwarf irregular galaxies. I. Sextans A

Aparicio, A., García-Pelayo, J.M., Moles, M., Melnick, J. 188, 267; 71, 297

Magellanic Clouds: see Galaxies: Magellanic Clouds

Magnetic field

Turbulent transport of magnetic fields. I. A simple mechanical model

Hoyng, P. 171, 348

Turbulent transport of magnetic fields. II. The role of fluctuations in kinematic theory

Hoyng, P. 171, 357

Anomalous Zeeman effect and its influence on the line absorption and dispersion coefficients

Mathys, G., Stenflo, J.O. 171, 368

The Alfvén-gravity spectrum of an incompressible slab

Hermans, D., Goossens, M. 172, 85

Observations of magnetic hydrogen lines in the white dwarf GD 229

Östreicher, R., Seifert, W., Ruder, H. Wunner, G. 173, L15

Anomalous Zeeman effect: moments and expansion coefficients *Mathys, G., Stenflo, J.O.* 175, 361; 67, 557

Cyclotron radiation, conservation laws and a correction to the synchrotron loss formula

Lieu, R., Quenby, J.J., Sumner, T.J. 176, L21

Generation of large-scale magnetic fields in spiral galaxies

Baryshnikova, Y., Ruzmaikin, A., Sokoloff IV, D.D., Shukurov, A. 177, 27

The effect of a poloidal magnetic field on the stability of a rotating self-gravitating disc

Schmitz, F. 179, 167

Origin of bipolarity in planetary nebulae (Text in French)

Pascoli, G. 180, 191

Some physical processes influencing the polarization of continuum and line radiation

Nagendra, K.N., Peraiah, A. 181, 71

The diffuse radio emission from the Coma cluster Schlickeiser, R., Sievers, A., Thiemann, H. 182, 21

The magnetic field strength in the emission line region of the AM Her system EF Eridani (=2A0311-277)

Seifert, W., Östreicher, R., Wunner, G., Ruder, H. 183, L1 Discovery of a magnetic DA white dwarf with distinct H β and H α Zeeman triplets

Hagen, H.-J., Groote, D., Engels, D., Haug, U., Toussaint, F. 183. L7

The pulsewidth-age relation of radio pulsars Candy, B.N., Blair, D.G. 183, L17

The structure of ULF waves produced by a tethered satellite system

Wright, A.N. 186, 354

Macroscopic perturbations of the IMF by P/Halley as seen by the Giotto magnetometer

Raeder, J., Neubauer, F.M., Ness, N.F., Burlaga, L.F. 187, 61 Low-frequency magnetic field fluctuations in comet P/Halley's magnetosheath: Giotto observations

Glaßmeier, K.H., Neubauer, F.M., Acuña, M.H., Mariani, F. 187, 65

Fine structure of the magnetic field in comet P/Halley's coma Yeroshenko, Y.G., Styashkin, V.A., Riedler, W., Schwingenschuh, K., Russel, C.T. 187, 69

Giotto magnetic-field results on the boundaries of the pile-up region and the magnetic cavity

Neubauer, F.M. 187, 73

MHD waves detected by ICE at distances ≥28 10⁶ km from comet P/Halley: Cometary or solar wind origin?

Tsurutani, B.T., Brinca, A.L., Smith, E.J., Thorne, R.M., Scarf, F.L., Gosling, J.T., Ipavich, F.M. 187, 97

Fluid simulation of comet P/Halley's ionosphere Baumgärtel, K., Sauer, K. 187, 307

Cometary MHD and chemistry

Wegmann, R., Schmidt, H.U., Huebner, W.F., Boice, D.C. 187, 339

A simplified cascade model for M.H.D. turbulence Carbone, V., Veltri, P. 188, 239

Magnetohydrodynamics; see Hydromagnetics, plasmas

Masers

First detection of SiO emission from circumstellar shells at the galactic centre

Lindqvist, M., Winnberg, A., Ukita, N., Johansson, L.E.B. 172, L3

SiO emission from the Orion KL region Zeng, Q., Sun, J., Lou, G.F. 172, 299

H₂O maser emission from stars in the IRAS point-source catalog

Zuckerman, B., Lo, K.Y. 173, 263

A multilevel study of ammonia in star-forming regions. I. Maser and thermal emission toward W 51 IRS 2

Mauersberger, R., Henkel, C., Wilson, T.L. 173, 352

Interferometric observations of the $\rm H_2O$ and OH maser emission from S Persei

Diamond, P.J., Johnston, K.J., Chapman, J.M., Lane, A.P., Bowers, P.F., Spencer, J.H., Booth, R.S. 174, 95

SiO maser emission in evolved stars: relation to IR continuum Bujarrabal, V., Planesas, P., del Romero, A. 175, 164 A new strong maser: HCN

Guilloteau, S., Omont, A., Lucas, R. 176, L24

New detections of probable massive pre-main sequence stars in the southern galactic plane

Braz, M.A., Epchtein, N. 176, 245

Optical and radio astrometry of four late-type stars with maser emission

de Vegt, C., Kleine, T., Johnston, K.J., Bowers, P.F., Spencer, J.H. 179, 322

OH observations of galactic radio H II regions Braz, M.A., Sivagnanam, P. 181, 19

New doublets in IRC+10216: Vibrationally excited C₄H? Guélin, M., Cernicharo, J., Navarro, S., Woodward, D.R., Gottlieb, C.A., Thaddeus, P. 182, L37

Molecular line observations of the H II region G34.3+0.2
Matthews, N., Little, L.T., Macdonald, G.H., Andersson, M., Davies, S.R., Riley, P.W., Dent, W.R.F., Vizard, D. 184, 284

Rotationally excited OH in megamaser galaxies Henkel, C., Güsten, R., Baan, W.A. 185, 14

Water vapor masers associated with young visible stars Rodriguez, L.F., Haschick, A.D., Torrelles, J.M., Myers, P.C. 186, 319

Mass function; see Luminosity function, mass function

Meteors, meteorites

Optical flash background rates

Schaefer, B.E., Pedersen, H., Gouiffes, C., Poulsen, J.M., Pizzichini, G. 174, 338

Rotational and vibrational synthetic spectra of linear parent molecules in comets

Crovisier, J. 176, 194; 68, 223

Hydromagnetic flows from rapidly rotating compact objects.
II. The relativistic axisymmetric jet equilibrium
Camenzind, M. 184, 341

Composition measurements and the history of cometary matter Geiss, J. 187, 859

Comet P/Halley dust characteristics: a comparison between Orionid and Eta Aquarid meteor observations and those from the flyby spacecraft

Hughes, D.W. 187, 879

The dynamical lifetime of comet P/Halley Olsson-Steel, D.I. 187, 909

The P/Halley meteor showers in 1985–1986 Hajduková, M., Hajduk, A., Cevolani, G., Formiggini, C. 187, 919

The spectra of meteors from comet P/Halley Halliday, I. 187, 921

Meteoroids from comet P/Halley. The comet's mass production and age

Hajduk, A. 187, 925

The 1985 return of the Giacobinid meteor stream Lindblad, B.A. 187, 928

The meteor stream associated with comet P/Grigg-Skjellerup Lindblad, B.A. 187, 931

Meteor contribution by short-period comets *Štohl, J.* **187**, 933

Associations between ancient comets and meteor showers Kresáková, M. 187, 935

Microwave background; see Cosmic background radiation

Millimeter lines

Detection of the hyperfine structure of the C₅H radical Cernicharo, J., Guélin, M., Walmsley, C.M. 172, L5

Deuterated ammonia in the Orion hot core

Walmsley, C.M., Hermsen, W., Henkel, C., Mauersberger, R., Wilson, T.L. 172, 311

Detection of HCN in comet P/Halley

Winnberg, A., Ekelund, L., Ekelund, A. 172, 335

The molecular counterparts of the submillimeter compact sources in L 1551 and B 335

Walmsley, C.M., Menten, K.M. 179, 231

Millimetre and submillimetre molecular line observations of the southwest lobe of L 1551; evidence of a shell structure

Rainey, R., White, G.J., Richardson, K.J., Griffin, M.J., Cronin, N.J., Monteiro, T.S., Hilton, J. 179, 237

Molecular observations of comets P/Giacobini-Zinner 1984e and P/Halley 1982 i at millimetre wavelengths

Bockelée-Morvan, D., Crovisier, J., Despois, D., Forveille, T., Gérard, E., Schraml, J., Thum, C. 180, 253

C₆H: astronomical study of its fine and hyperfine structure Cernicharo, J., Guélin, M., Menten, K.M., Walmsley, C.M. 181, L1

Sulfur in IRC+10216

Cernicharo, J., Guélin, M., Hein, H., Kahane, C. 181, L9

Metals in IRC+10216: detection of NaCl, AlCl and KCl, and tentative detection of AlF

Cernicharo, J., Guélin, M. 183, L10

The light curve of SN 1987 A

Schaeffer, R., Cassé, M., Mochkovitch, R., Cahen, S. 184, L1 Centimeter and millimeter recombination lines from W3 (OH): Expansion or champagne flow?

Wilson, T.L., Mauersberger, R., Brand, J., Gardner, F.F. 186,

Laboratory study of the rotational spectrum of vibrationally excited C_2H

Woodward, D.R., Pearson, J.C., Gottlieb, C.A., Guélin, M., Thaddeus, P. 186, L14

The detection of extragalactic methanol

Henkel, C., Jacq, T., Mauersberger, R., Menten, K.M., Steppe, H. 188, L1

Molecules; see Atomic and molecular data; Interstellar medium: molecules; Radio lines: molecular

Nebulae; see Interstellar medium: HII regions; Planetary nebulae; Interstellar medium: reflexion nebulae; Supernovae and supernova remnants

Neutrinos; see Elementary particles

Nuclear reactions

The $^{189}{\rm Os}\,(n,\gamma)$ cross section and implications for the duration of stellar nucleosynthesis

Winters, R.R., Macklin, R.L., Hershberger, R.L. 171, 9

Measurement of the neutron capture cross section of ⁴⁰Ar and an s-process analysis from ³⁴S to ⁴²Ca

Beer, H., Penzhorn, R.-D. 174, 323

Approximate penetration factors for nuclear reactions of astrophysical interest

Humblet, J., Fowler, W.A., Zimmerman, B.A. 177, 317

The incompressibility of hot, neutron-rich nuclear matter

Vinas, X., Barranco, M., Treiner, J., Stringari, S. 182, L34

Catalogue of cataclysmic binaries, low-mass X-ray binaries and related objects (fourth edition)

Ritter, H. 185, 355; 70, 335

Nucleosynthesis

Measurement of lithium abundance in dwarf stars of M 67

Spite, F., Spite, M., Peterson, R.C., Chaffee, F.H., Jr. 171,

Stellar evolution with turbulent diffusion mixing. VII. Application to the determination of primordial ³He abundance

Schatzman, E. 172, 1

Some inferences on chemical evolution from a study of irregular and blue compact galaxies

Vigroux, L., Stasińska, G., Comte, G. 172, 15

The lithium abundance in the extremely metal-deficient dwarf G 64-12

Rebolo, R., Beckman, J., Molaro, P. 172, L17

Magnesium isotopes in super-metal-rich stars Barbuy, B. 172, 251

Photinos and primordial nucleosynthesis

Salati, P., Delbourgo-Salvador, P., Audouze, J. 173, 1

Measurement of the neutron capture cross section of ⁴⁰Ar and an s-process analysis from ³⁴S to ⁴²Ca

Beer, H., Penzhorn, R.-D. 174, 323

Neutrino flow dominance during the cosmological quark-hadron transition

Bonometto, S.A., Pantano, O. 176, L9

Determination of the sulphur abundance in metal-deficient dwarf stars

François, P. 176, 294

Light element production in Barker's cosmologies

Dominguez-Tenreiro, R., Yepes, G. 177, 5

Approximate penetration factors for nuclear reactions of astrophysical interest

Humblet, J., Fowler, W.A., Zimmerman, B.A. 177, 317

Light element and Ni abundances in field disk and halo stars Gratton, R.G., Sneden, C. 178, 179

Magnesium isotopes in metal-poor and metal-rich stars

Barbuy, B., Spite, F., Spite, M. 178, 199

Primordial nucleosynthesis in the Brans-Dicke theory with a variable cosmological term

Arai, K., Hashimoto, M., Fukui, T. 179, 17

Upper limit to the boron abundance in the Population II star HD 140283

Molaro, P. 183, 241

Chemical evolution of elliptical galaxies

Matteucci, F., Tornambè, A. 185, 51

Composition measurements and the history of cometary matter Geiss, J. 187, 859

Numerical methods

A new approach to the Finson-Probstein method of interpreting cometary dust tails

Fulle, M. 171, 327

Two-dimensional numerical models of the boundary layer of accretion disks in cataclysmic variables

Kley, W., Hensler, G. 172, 124

Approximate solutions to the cosmic ray transport equation: the maximum entropy method

Hick, P., Stevens, G. 172, 350

A numerical simulation of planetary rings. I. Binary encounters Petit, J.-M., Hénon, M. 173, 389 Influence of stellar evolution on the evolution of planetary nebulae. I. Numerical method and hydrodynamical structures

Schmidt-Voigt, M., Köppen, J. 174, 211

A numerical study of steady-state shock acceleration Achterberg, A. 174, 329

A simple imaging procedure for gravitational lenses Schramm, T., Kayser, R. 174, 361

Determination of velocity and magnetic fields from observational data in solar active regions

Berton, R. 175, 238

Computation of the first and second derivatives of the Lagrange equations by harmonic analysis (Text in French)

Simon, J.-L. 175, 303

The feasibility of periodicity searches in gamma-ray astronomy Buccheri, R., Özel, M.E., Sacco, B. 175, 353

A statistical method to derive the true distribution of an astronomical parameter some values of which are known only by limits

Chamaraux, P. 177, 326

A new statistical method to derive radial velocity shifts from stellar spectra

de Loore, C., Monderen, P., Rousseeuw, P. 178, 307

The evolution of helium stars in the mass range 2.0 to 4.0 M_{\odot} : the evolutionary program

Habets, G.M.H.J. 178, 326; 69, 183

The method of projected characteristics for the evolution of magnetic arches

Nakagawa, Y., Hu, Y.Q., Wu, S.T. 179, 354

Acoustic waves in early-type stars. II. The modified equations and the numerical code

Wolf. B.E. 179, 371

Radio-interferometric imaging of weak objects in conditions of poor phase stability: the relationship between speckle masking and phase closure methods

Cornwell, T.J. 180, 269

Long-term numerical integrations and synthetic theories for the motion of the outer planets

Carpino, M., Milani, A., Nobili, A.M. 181, 182

An investigation of the motions of the node and perihelion of Mercury

Rana, N.C. 181, 195

The adding method for multiple scattering calculations of polar-

de Haan, J.F., Bosma, P.B., Hovenier, J.W. 183, 371

Fragmenting the universe. I. Statistics of two-dimensional Voronoi foams

Icke, V., van de Weygaert, R. 184, 16

A study of the efficiency of some inversion techniques applied to a simple model of the Moon

Ibrahim Denis, A. 184, 373

NLTE models for cocoon stars

Höflich, P., Wehrse, R. 185, 107

The identification of vignetted sources in coded aperture imaging

Stephen, J.B., Caroli, E., Di Cocco, G., Maggioli, P.P., Natalucci, L., Spizzichino, A. 185, 343

Detailed analysis of a surface feature on comet P/Halley

Schwarz, G., Craubner, H., Delamere, A., Göbel, M., Gonano, M., Huebner, W.F., Keller, H.U., Kramm, R., Mikusch, E., Reitsema, H., Whipple, F.L., Wilhelm, K. 187, 847

A numerical simulation of planetary rings. II. Monte Carlo model

Petit, J.-M., Hénon, M. 188, 198

A three-dimensional extended Kolmogorov-Smirnov test as a useful tool in astronomy

Gosset, E. 188, 258

Observational methods

Optical flash background rates

Schaefer, B.E., Pedersen, H., Gouiffes, C., Poulsen, J.M., Pizzichini, G. 174, 338

The IRAM 30-m millimeter radio telescope on Pico Veleta, Spain

Baars, J.W.M., Hooghoudt, B.G., Mezger, P.G., de Jonge, M.J. 175, 319

A multichannel multicolour photometer for high time resolution Barwig, H., Schoembs, R., Buckenmayer, C. 175, 327

Designation and nomenclature for astronomical sources of radiation

Dickel, H.R., Lortet, M.-C., de Boer, K.S. 176, 190; 68, 75 Stellar photometry with Schmidt plates

Mohan, V., Crézé, M. 177, 352; 68, 529

Night sky optical spectrum from a high altitude observatory Louistisserand, S., Bücher, A., Koutchmy, S., Lamy, P. 177, 352: 68, 539

Radio-interferometric imaging of weak objects in conditions of poor phase stability: the relationship between speckle masking and phase closure methods

Cornwell, T.J. 180, 269

An investigation of the motions of the node and perihelion of Mercury

Rana, N.C. 181, 195

Data reduction and spectrophotometric performances of PUMA 1: an on-line multiaperture spectroscopic system used at the CFHT

Soucail, G., Mellier, Y., Fort, B., Picat, J.P., Cailloux, M. 184, 361

Observations of anomalous refraction at radio wavelengths Altenhoff, W.J., Baars, J.W.M., Downes, D., Wink, J.E. 184, 381

Expected number of new variable stars by TYCHO photometry with HIPPARCOS

Mauder, H., Høg, E. 185, 349

Observations of ions in comet P/Halley with a focal reducer Jockers, K., Geyer, E.H., Rosenbauer, H., Hänel, A. 187, 256 Low-resolution maps of comet P/Halley in principal atomic and molecular species

Kidger, M.R., Acosta, J.A., Garzón, F., Prieto, M., Gómez, R. 187, 363

Comet P/Halley near-nucleus phenomena in 1986

Larson, S., Sekanina, Z., Levy, D., Tapia, S., Senay, M. 187, 639

Occultations

Pluto eclipses of and by Charon must be unequal Mulholland, J.D., Gustafson, B.A.S. 171, L5

A catalogue of occultation observations of the Galilean satellites of Jupiter

Fairhead, L., Arlot, J.-E., Jannot, Y., Thuillot, W. 176, 190; 68,

Ooty lunar occultation survey of radio sources Singal, A.K. 178, 324; 69, 91

Parallaxes; see Distances, distance scale

Particle acceleration; see Acceleration mechanisms

Photometry

The active galaxy PKS 0521-36 and its optical jet Cavatte, V., Sol, H. 171, 25

Eight-colour photometry of stars associated with selected Sharpless H II regions at $l^{\rm II} \simeq 190^\circ$: S252, S254, S255, S257, and S261

Chavarria-K, C., de Lara, E., Hasse, I. 171, 216 Four-colour photometry of eclipsing binaries.

XXVI A. RY Aqr: a low-mass semidetached system with intrinsic variability

Helt, B.E. 172, 155

Photoelectric study of HD 96008: a close binary system or a new pulsating star?

Lampens, P. 172, 173

IRAS far-infrared colours of normal stars

Waters, L.B.F.M., Coté, J., Aumann, H.H. 172, 225

Chemical and photometric properties of a galactic wind model for elliptical galaxies

Arimoto, N., Yoshii, Y. 173, 23

Photometric and spectroscopic investigation of three close companions of $M\,87$

Prugniel, P., Nieto, J.-L., Simien, F. 173, 49

The optical variability of seven BL Lacertae objects

Xie Guang-Zhong, Li Kai-Hua, Bao Men-Xien, Hau Peng-Jiu, Zhou Yuan, Liu Xin-De, Deng Li-Wu 173, 214; 67, 17

A photometric study of DM Delphini

Güdür, N., Sezer, C., Gülmen, Ö. 173, 216; 67, 87

Rotational properties and light curves of the minor planets 94, 107, 197, 201, 360, 451, 511 and 702

Di Martino, M., Zappala', V., De Campos, J.A., Debehogne, H., Lagerkvist, C.-I. 173, 216; 67, 95

A photoelectric UBV sequence in SA 184

Ardeberg, A., Lindgren, H. 173, 216; 67, 103

UBVRI photoelectric photometry of nearby stars. II.

Rosselló, G., Blanch, R., Figueras, F., Jordi, C., Núñez, J., Paredes, J.M., Sala, F., Torra, J. 173, 217; 67, 157

RGU-three colour photometry in the anticentre-intermediate latitude field NGC 2420 $\,\cdot\,$

Fenkart, R., Topaktas, L., Boydağ, S., Kandemir, G. 173, 417; 67, 245

New photoelectric light curves and elements of SW Lacertae Niarchos, P.G. 173, 420; 67, 365

CCD photometry of the ring galaxy VV 32 Bonoli, C. 174, 57

VBLUW photometry of emission nebulae Greve, A., van Genderen, A.M. 174, 243

Infrared photometry of comet P/Halley before perihelion Bouchet, P., Chalabaev, A., Danks, A., Encrenaz, T., Epchtein, N., Le Bertre, T. 174, 288

Optical flash background rates

Schaefer, B.E., Pedersen, H., Gouiffes, C., Poulsen, J.M., Pizzichini, G. 174, 338

Absolute dimensions of eclipsing binaries. XII. TZ Mensae Andersen, J., Clausen, J.V., Nordström, B. 175, 60

A multichannel multicolour photometer for high time resolution Barwig, H., Schoembs, R., Buckenmayer, C. 175, 327

Deep photometry of globular clusters. VI. E2 and E3 Gratton, R.G., Ortolani, S. 175, 357; 67, 373

Strömgren and H β photometry of early-type stars in northern open clusters. I. NGC 7039, NGC 7063

Schneider, H. 175, 361; 67, 545

IRAS observations of Be stars. I. Statistical study of the IR excess of 101 Be stars

Coté, J., Waters, L.B.F.M. 176, 93

Evolution of the periodicity of the W UMa system ε CrA

Manfroid, J., Heck, A., Lunel, M., Bergeat, J. 176, 180 CCD surface photometry of galaxies in the cluster Shapley 1346-

Daly, P.N., Phillipps, S., Disney, M.J. 176, 188; 68, 33

Four-colour photometry of eclipsing binaries. XXV. Light curves of V 451 Ophiuchi

Clausen, J.V., Giménez, A., García, J.M., Rolland, A. 176, 192; 68, 141

Four-colour photometry of eclipsing binaries. XXVI B. Light curves of RY Agr

Helt, B.E. 176, 193; 68, 187

UBV photometry of stars whose positions are accurately known. IV

Oja, T. 176, 193; 68, 211

UBVRI photoelectric photometry of 48 southern galaxies Lauberts, A. 176, 193; 68, 215

Narrow-band photometry of late-type stars. II

Häggkvist, L., Oja, T. 176, 194; 68, 259

Physical studies of asteroids. XV. Determination of slope parameters and absolute magnitudes for 51 asteroids

Lagerkvist, C.-I., Williams, I.P. 176, 195; 68, 295

Four-colour photometry of eclipsing binaries. XXVIIa. Light curves of AO Velorum

Grønbech, B. 176, 195; 68, 317

Four-colour photometry of eclipsing binaries. XXVIII. Light curves of BW Aquarii

Grønbech, B., Andersen, J., Clausen, J.V., Helt, B.E., Jensen, K.S. 176, 195; 68, 323

Four-colour photometry of eclipsing binaries. XXIX. Light curves of TZ Mensae

Grønbech, B., Andersen, J., Clausen, J.V., Nordström, B., Reipurth, B. 176, 196; 68, 331

Short-period variations in i Herculis

Chapellier, E., Le Contel, J.M., Valtier, J.C., Gonzalez-Bedolla, S., Ducatel, D., Morel, P.J., Sareyan, J.P., Geiger, I., Antonelli, P. 176, 255

Infrared photometry of SN 1987 A

Bouchet, P., Stanga, R., Le Bertre, T., Epchtein, N., Hamann, W.R., Lorenzetti, D. 177, L9

Physical parameters of the Pluto-Charon system

Reinsch, K., Pakull, M.W. 177, L43

The light curve of BW Vulpeculae

Sterken, C., Young, A., Furenlid, I. 177, 150

Shell stars in the Geneva photometric system

Hauck, B. 177, 193

Geneva photometric boxes. V. The far-ultraviolet extinction in the solar neighbourhood

Nicolet, B. 177, 233

RS Indi: UBV light curves and period study

Cerruti, M.A., Marton, S., Grieco, A., Lapasset, E., Sistero, R.F., Claria, J.J. 177, 350; 68, 351

UBVRI photometry of active galaxies. I. Observations

Hamuy, M., Maza, J. 177, 350; 68, 383

RGU three-colour photometric space densities in a field near the galactic centre (PLAUT II), compared with different Galaxy models

del Rio, G., Fenkart, R. 177, 350; 68, 397

Stellar photometry with Schmidt plates

Mohan, V., Crézé, M. 177, 352; 68, 529

NGC 2242: a newly discovered planetary nebula Maehara, H., Okamura, S., Noguchi, T., He, X.T., Liu, J.Y., Huang, Y.W., Feng, X.C. 178, 221 Photoelectric search for CP 2-stars in open clusters. IX. Pleiades and Coma Berenices. The case of Pleione

Maitzen, H.M., Pavlovski, K. 178, 313

Model-compared RGU-photometric space densities in the highlatitude field M 101

Fenkart, R., Karaali, S. 178, 322; 69, 33

Photoelectric five-coulour photometry of the asteroids 16 Psyche, 201 Penelope, and 702 Alauda

Pfleiderer, J., Pfleiderer, M., Hanslmeier, A. 178, 324; 69, 117

The Baade-Wesselink method applied to field RR Lyrae stars. I. UVBRI photoelectric and radial velocity data

Cacciari, C., Clementini, G., Prévot, L., Lindgren, H., Lolli, M., Oculi, L. 178, 325; 69, 135

uvby photometry of southern B- and A-stars

van der Linden, D., Sterken, C. 178, 325; 69, 157 RGU-photometry in a complexly reddened Milky Way field in the direction to SA 193

Fenkart, R., Topaktas, L. 178, 327; 69, 279

Four-colour photometry of the early-type eclipsing binary AL Scl

Haefner, R. 178, 327; 69, 295

Multi-color photographic surface photometry of thé Andromeda galaxy

Walterbos, R.A.M., Kennicutt, R.C., Jr. 178, 328; 69, 309

Photometry and elements of the pre-contact system FO Vir Poretti, E., Niarchos, P.G., Mantegazza, L., Antonello, E.,

Conconi, P. 178, 328; 69, 335

Ultraviolet observations and star-formation rate in galaxies Donas, J., Deharveng, J.M., Laget, M., Milliard, B., Huguenin, D. 180, 12

Near-infrared photometry of LSI +61°303

D'Amico, N., Lorenzetti, D., Massaro, E., Saraceno, P., Strafella, F. 180, 114

Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 180, 278; 69, 371

New observations and frequency analysis of the β Cephei star τ^1 Lupi

Cuypers, J. 180, 280; 69, 445

uvby observations of A, F, G and K field stars

Manfroid, J., Oblak, E., Pernier, B. 180, 281; 69, 505

The pulsation modes of CO Aur

Babel, J., Burki, G. 181, 34
Simultaneous multicolour photometry of OY Carinae during quiescence

Schoembs, R., Dreier, H., Barwig, H. 181, 50

B and A type stars with unexpectedly large colour excesses at IRAS wavelengths

Coté, J. 181, 77

HD 37819 \equiv V 356 Aur, a double-mode δ Sct star with an unusual period ratio

Poretti, E., Mantegazza, L., Antonello, E. 181, 273

Infrared photometry of late-type Wolf-Rayet stars

Williams, P.M., van der Hucht, K.A., Thé, P.S. 182, 91

 \boldsymbol{B} and \boldsymbol{V} photometry of two distant galaxy clusters with 6 m telescope plates

Iannicola, G., Kalloghlian, A., Nanni, D., Vignato, A. 182, 189 The BVJK light curves of the short-period eclipsing binary CG Cygni

Bedford, D.K., Fuensalida, J.J., Arévalo, M.J. 182, 264

Physical studies of asteroids. XVI. Photoelectric photometry of 17 asteroids

Lagerkvist, C.-I., Hahn, G., Magnusson, P., Rickman, H. 182, 359; 70, 21

Photometric variability of some CP stars

Heck, A., Mathys, G., Manfroid, J. 182, 360; 70, 33

An objective-prism survey for Hα-emission-line stars of a field in Puppis

Pettersson, B. 182, 361; 70, 69

UBV photometry of novae

van den Bergh, S., Younger, P.F. 182, 362; 70, 125

CCD photometry and dynamics of the peculiar galaxy ESO 217-G09

Marston, A.P. 183, 21

A search for non-stellar contributions to the optical and near-IR flux of RS CVn binaries. I. The cases of TY Pyx, UV Psc, RU Cnc and VV Mon

Busso, M., Scaltriti, F., Persi, P., Robberto, M., Silvestro, G.

Rotation and variability of the large C-type asteroid 375 Ursula Schober, H.J. 183, 151

Evidence for no short time scale photometric variations in the Bp-Si star HD 92664

Mégessier, C., North, P. 183, 187; 70, 247

FS Lupi: a contact binary in poor thermal contact Milano, L., Russo, G., Terzan, A. 183, 265

The classification of planetary nebulae

Faundez-Abans, M., Maciel, W.J. 183, 324

Optical and near-infrared observations of IRAS galaxies. II Moorwood, A.F.M., Véron-Cetty, M.-P., Glass, I.S. 184, 63

Standard photometric diameters of galaxies. III. Reduction of the diameters in the ESO-B and SGC catalogues to the standard diameter system at the 25 mag arcsec⁻² brightness level

Paturel, G., Fouqué, P., Lauberts, A., Valentijn, E.A., Corwin, H.G., de Vaucouleurs, G. 184, 86

The variable star HD 79889

Oja, T. 184, 215

Which photometric period for WR 16?

Manfroid, J., Gosset, E., Vreux, J.M. 185, L7

A high precision photometric investigation of the micro-variations of Wolf-Rayet stars

van Genderen, A.M., van der Hucht, K.A., Steemers, W.J.G. 185, 131

IRAS observations of Be stars. II. Far-IR characteristics and mass loss rates

Waters, L.B.F.M., Coté, J., Lamers, H.J.G.L.M. 185, 206

Infrared observations of metal-deficient stars

Arribas, S., Martinez Roger, C. 185, 354; 70, 303

UBVRI photometry of FKSZ stars. I

Carrasco, G., Loyola. P. 185, 355; 70, 369

Erratum: Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 185, 358; 70, 141

A comparison between two-dimensional classifications from Vilnius photometry and those on the MK system

Corbally, C.J., Boyle, R.P. 186, 114

UBV photoelectric catalogue (1986). II. Analysis of the data Mermilliod, J.-C. 186, 364; 71, 119

Deep photometry of globular clusters. X. The cluster GIC0435-59 in Reticulum

Gratton, R.G., Ortolani, S. 186, 364; 71, 131

Strömgren photometry of open clusters. II. NGC3532 Schneider, H. **186**, 365; 71, 147 Pioneer Venus measurements of H, O, and C production in comet $P/\!\operatorname{Halley}$ near perihelion

Stewart, A.I.F. 187, 369

Photometry of P/Halley (1982i)

Sterken, C., Manfroid, J., Arpigny, C. 187, 523

Photometric observations of comet P/Giacobini-Zinner Schleicher, D.G., Millis, R.L., Birch, P.V. 187, 531

The visual brightness behavior of P/Halley during 1981–1987 Green, D.W.E., Morris, C.S. 187, 560

The spectral behavior of P/Halley at large heliocentric distance in light of the Giotto/Vega results

Belton, M.J.S., Spinrad, H., Wehinger, P.A., Wyckoff, S., Yeomans, D.K. 187, 569

Periodicities in the light curve of P/Halley and the rotation of its nucleus

Festou, M.C., Drossart, P., Lecacheux, J., Encrenaz, T., Puel, F., Kohl-Moreira, J.L. 187, 575

Chinese observations of comet P/Halley in China and abroad Gong (Kung), S.M., Wu, G.J., Chen, P.S., Zhang, X.F., Sun, S.S. 187, 594

Photometry of comet P/Halley from 40 to 160 µm

Campins, H., Joy, M., Harvey, P.M., Lester, D.F., Ellis, H.B., Jr. 187, 632

The dust tail of comet P/Halley in April 1986 Lamy, P.L., Pedersen, H., Vio, R. 187, 661

Comet P/Halley: implications of the mass distribution function for the photopolarimetric properties of the dust coma *Lamy, P.L., Grün, E., Perrin, J.M.* 187, 767

Evolution of comet P/Halley in early March 1986 as observed from Vega pictures

Abergel, A., Bertaux, J.L. 187, 829

Detailed analysis of a surface feature on comet P/Halley Schwarz, G., Craubner, H., Delamere, A., Göbel, M., Gonano, M., Huebner, W.F., Keller, H.U., Kramm, R., Mikusch, E.,

Reitsema, H., Whipple, F.L., Wilhelm, K. 187, 847
Background starlight at the north and south celestial, ecliptic, and

galactic poles

Toller, G., Tanabe, H., Weinberg, J.L. 188, 24

Photoelectric search for CP2-stars in open clusters. X. NGC 2232, NGC 2343, Cr 140, and Tr 10

Jenkner, H., Maitzen, H.M. 188, 266; 71, 255

GALAXY and the Galaxy. The RGO selected area proper motion survey. I. Photometric sequences in selected areas

Reid, N., King, D.L., Argyle, R.W. 188, 269; 71, 397

UBV photometric photometry catalogue (1986). I. The original data (magnetic tape)

Mermilliod, J.-C. 188, 270; 71, 413

A $wby\beta$ survey of northern-hemisphere active binaries. I. The observations

Reglero, V., Giménez, A., de Castro, E., Fernandez-Figueroa, M.J. 188, 270; 71, 421

Photoelectric search for CP2-stars in open clusters. XI. NGC 3532 and NGC 5662

Maitzen, H.M., Schneider, H. 188, 270; 71, 431

Photoelectric search for CP2-stars in open clusters. XII. Alpha Persei, Praesepe and NGC 7243

Maitzen, H.M., Pavlovski, K. 188, 271; 71, 441

A morphological survey of emission line galaxies

Tarrab, I. 188, 271; 71, 449

Strömgren photometry of open clusters. III. NGC2323, NGC5662

Schneider, H. 188, 272; 71, 531

Instrumental effects and the Strömgren photometric system Manfroid, J., Sterken, C. 188, 272; 71, 539

UBV photometry of stars whose positions are accurately known. V

Oja, T. 188, 273; 71, 561

BV photometry of β Lyrae in 1979 and 1981

Aslan, Z., Derman, E., Engin, S., Yilmaz, N. 188, 274; 71, 597

Planetary nebulae: general

Radio continuum spectra of compact planetary nebulae: a windshell model

Taylor, A.R., Pottasch, S.R., Zhang, C.Y. 171, 178

Very cold IRAS objects and pre-planetary nebulae: CO observations

Likkel, L., Omont, A., Morris, M., Forveille, T. 173, L11

Revisited mass-loss rates for the nuclei of the planetary nebulae NGC 6210, NGC 6826 and NGC 6543: the first order moment W_1 of subordinate line profiles

Hutsemékers, D., Surdej, J. 173, 101

High dispersion spectroscopy of point sources and extended objects with an echelle/CCD spectrograph

McKeith, C.D., Bates, B., Catney, M., Barnett, E., Jorden, P.R., van Breda, I.G. 173, 204

An objective-prism survey of emission-line objects in M 33 and IC 1613

Lequeux, J., Meyssonnier, N., Azzopardi, M. 173, 218; 67, 169

Improved radiative transition probabilities for OII forbidden lines

Zeippen, C.J. 173, 410

Influence of stellar evolution on the evolution of planetary nebulae. I. Numerical method and hydrodynamical structures

Schmidt-Voigt, M., Köppen, J. 174, 211

Influence of stellar evolution on the evolution of planetary nebulae. II. Confrontation of models with observations

Schmidt-Voigt, M., Köppen, J. 174, 223

VBLUW photometry of emission nebulae

Greve, A., van Genderen, A.M. 174, 243

Spectroscopic observations of genuine and misclassified planetary nebulae

Sabbadin, F., Falomo, R., Ortolani, S. 175, 360; 67, 541

IRAS 09371+1212: an icy evolved, mass-losing star with a unique IR spectrum

Forveille, T., Morris, M., Omont, A., Likkel, L. 176, L13
Spectroscopic observations of faint and misclassified planetary

Stenholm, B., Acker, A. 176, 189; 68, 51

Study of IRAS observations of newly classified planetary nebulae

Iyengar, K.V.K. 176, 190; 68, 103

Two new OH emitting planetary nebulae

Pottasch, S.R., Bignell, C., Zijlstra, A. 177, L49

Two senile nearby planetary nebulae and the local PN popula-

Ishida, K., Weinberger, R. 178, 227

IRAS observations of the Dumbbell Nebula

Zhang, C.Y., Leene, A., Pottasch, S.R., Mo, J.E. 178, 247 Extended filamentary structures in the halo of the Lyra planetary nebula NGC 6720

Moreno, M.A., López, J.A. 178, 319

Dielectronic recombination at low temperatures. IV. Recombination coefficients for neon

Nussbaumer, H., Storey, P.J. 178, 324; 69, 123

Su

Lo

m

The formation of the principal system of novae Friedjung, M. 180, 155

Optical and infrared observations of two type-II OH/IR sources

Le Bertre, T. 180, 160

Origin of bipolarity in planetary nebulae (Text in French)

Pascoli, G. 180, 191

The $-33^{\circ} \le \delta \le 17^{\circ}$ zone: probing SRC J film copies for planetary nebulae

Saurer, W., Weinberger, R. 180, 282; 69, 527

Distribution of I(HeII λ 4686)/I(H β) in planetary nebulae and masses of their nuclei

Szczerba, R. 181, 365

On the nature of 623+71: a cataclysmic binary surrounded by a bow-shock-like emission nebula

Krautter, J., Klaas, U., Radons, G. 181, 373

The 3.3 µm and 3.4 µm emission features in planetary nebulae Martin, W. 182, 290

The Type-I planetary nebula Humason 1-2

Sabbadin, F., Cappellaro, E., Turatto, M. 182, 305

Photometric and spectrophotometric observations of 10 southern planetary nebulae

Louise, R., Macron, A., Pascoli, G., Maurice, E. 183, 186; 70, 201

Erratum: The $-33^{\circ} \le \delta \le -17^{\circ}$ zone: probing SRC J film copies for planetary nebulae

Saurer, W., Weinberger, R. 185, 358; 70, 531

The kinematical structure of the bipolar planetary nebula 19 W 32

López, J.A. 186, 303

Misclassified planetary nebulae

Acker, A., Chopinet, M., Pottasch, S.R., Stenholm, B. 186, 365; 71, 163

Effective collision strengths for fine-structure forbidden transitions in the $3p^3$ configuration of ATIV

Zeippen, C.J., Butler, K., Le Bourlot, J. 188, 251

Properties of planetary nebulae. I. Nebular parameters and distance scales

Gathier, R. 188, 266; 71, 245

Planetary nebulae: individual

Hu 1-2

The Type-I planetary nebula Humason 1-2 Sabbadin, F., Cappellaro, E., Turatto, M. 182, 305

IC 418

Detection of neutral hydrogen in the planetary nebula IC 418 Taylor, A.R., Pottasch, S.R. 176, L5

LT-S

The nucleus of LT-5: an unusual triple system?

Jasniewicz, G., Duquennoy, A., Acker, A. 180, 145

NGC 40

NGC 40: IUE observations of the nucleus Bianchi, L., Grewing, M. 181, 85

NGC 2242

NGC 2242: a newly discovered planetary nebula Maehara, H., Okamura, S., Noguchi, T., He, X.T., Liu, J.Y., Huang, Y.W., Feng, X.C. 178, 221

NGC 6543

Models for the wind of the central star of NGC 6543 Lucy, L.B., Perinotto, M. 188, 125

NGC 6720

Extended filamentary structures in the halo of the Lyra planetary nebula NGC 6720

Moreno, M.A., López, J.A. 178, 319

NGC 7027

Detection of the hydrocarbon ring molecule $\mathrm{C_3H_2}$ in the planetary nebula NGC 7027

Cox, P., Güsten, R., Henkel, C. 181, L19

NGC7293

Observations of extended planetary nebulae. I. NGC 7293: the Helix Nebula

Leene, A., Pottasch, S.R. 173, 145

19 W 32

The kinematical structure of the bipolar planetary nebula 19 W 32

López, J.A. 186, 303

Planets and satellites: abundances

The D/H ratio in water from comet P/Halley
Eberhardt, P., Dolder, U., Schulte, W., Krankowsky, D.,
Lämmerzahl, P., Hoffman, J.H., Hodges, R.R., Berthelier, J.J.,
Illiano, J.M. 187, 435

Planets and satellites: atmospheres of

Thermal diffusion in partially ionized gases: the case of unequal temperatures

Geiss, J., Bürgi, A. 178, 286

Theoretical studies of the faint features in the $S_0(0)$ line of H_2 observed in the Voyager IRIS mission

Schaefer, J. 182, L40

A unified treatment of polarized light emerging from a homogeneous plane-parallel atmosphere

Hovenier, J.W. 183, 363

The adding method for multiple scattering calculations of polarized light

de Haan, J.F., Bosma, P.B., Hovenier, J.W. 183, 371

The nature of Saturn's atmospheric Great White Spots Sanchez-Lavega, A., Battaner, E. 185, 315

The CO and N2 abundance in comet P/Halley

Eberhardt, P., Krankowsky, D., Schulte, W., Dolder, U., Lämmerzahl, P., Berthelier, J.J., Woweries, J., Stubbemann, U., Hodges, R.R., Hoffman, J.H., Illiano, J.M. 187, 481

Planets and satellites: general

Numerical experiments relative to primordial rotations of planets

Gaudon, P., Cazenave, A. 173, 183

A numerical simulation of planetary rings. I. Binary encounters Petit, J.-M., Hénon, M. 173, 389

Speckle interferometric observations of Pluto and its moon Charon on seven different nights

Baier, G., Weigelt, G. 174, 295

Computation of the first and second derivatives of the Lagrange equations by harmonic analysis (Text in French)

Simon, J.-L. 175, 303

Meridian observations of Uranus and Neptune at Bordeaux Observatory. Comparison with ephemerides

Rapaport, M., Requième, Y., Mazurier, J.M., Francou, G. 179, 317

Long-term numerical integrations and synthetic theories for the motion of the outer planets

Carpino, M., Milani, A., Nobili, A.M. 181, 182

A numerical simulation of planetary rings. II. Monte Carlo model

Petit. J.-M., Hénon, M. 188, 198

Planets and satellites: individual

Hyperion

Corrections to the theory of the orbit of Saturn's satellite Hyperion

Taylor, D.B., Sinclair, A.T., Message, P.J. 181, 383

lo

Localization of Io and non-Io sources of Jovian decameter emission

Boischot, A., Sastri, J.H., Zarka, P. 175, 287

Jupiter

Localization of Io and non-Io sources of Jovian decameter emission

Boischot, A., Sastri, J.H., Zarka, P. 175, 287

Galilean satellite evolution: observational evidence for secular changes in mean motions

Lieske, J.H. 176, 146

Mercury

An investigation of the motions of the node and perihelion of Mercury

Rana, N.C. 181, 195

Neptune

Comparison of Bretagnon's VSOP 82 theory with observations of Neptune

Gomes, R.S., Ferraz-Mello, S. 185, 327

Pallas

Normal places for Pallas 1802–1978 Landgraf, W. 188, 265; 71, 197

Pluto

Pluto eclipses of and by Charon must be unequal Mulholland, J.D., Gustafson, B.A.S. 171, L5

Speckle interferometric observations of Pluto and its moon Charon on seven different nights

Baier, G., Weigelt, G. 174, 295

Physical parameters of the Pluto-Charon system Reinsch, K., Pakull, M.W. 177, L43

Saturn

The nature of Saturn's atmospheric Great White Spots Sanchez-Lavega, A., Battaner, E. 185, 315

Uranus

Equatorial coordinates of Uranus obtained with the astrolabe at Santiago

Noël, F. 176, 194; 68, 219

GUST 86. An analytical ephemeris of the Uranian satellites Laskar, J., Jacobson, R.A. 188, 212

Planets and satellites: magnetospheres of

High frequency limit and visibility of the non-Io and Io-dependent Jovian decameter radio emission

Genova, F., Aubier, M.G. 177, 303

Voyager and Nançay observations of the Jovian radio-emission at different frequencies: solar wind effect and source extent

Genova, F., Zarka, P., Barrow, C.H. 182, 159

Planets and satellites: Moon

A study of the efficiency of some inversion techniques applied to a simple model of the Moon

Ibrahim Denis, A. 184, 373

Planets and satellites: satellites

Galilean satellite evolution: observational evidence for secular changes in mean motions

Lieske, J.H. 176, 146

A catalogue of occultation observations of the Galilean satellites of Jupiter

Fairhead, L., Arlot, J.-E., Jannot, Y., Thuillot, W. 176, 190; 68, 81

Chaos and secular variations of planar orbits in 2:1 resonance with Dione

Ferraz-Mello, S., Dvorak, R. 179, 304

Corrections to the theory of the orbit of Saturn's satellite Hyperion

Taylor, D.B., Sinclair, A.T., Message, P.J. 181, 383

A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R. 182, 150 Optical evolution of laboratory-produced organics: applications to Phoebe, Iapetus, outer belt asteroids and cometary nuclei

Andronico, G., Baratta, G.A., Spinella, F., Strazzulla, G. 184, 333

Erratum: A semi-analytical solution for the eccentricities and longitudes of the pericenter of the Uranian satellites

Lazzaro, D., Ferraz-Mello, S., Vieira Martins, R. 186, 360 GUST 86. An analytical ephemeris of the Uranian satellites Laskar, J., Jacobson, R.A. 188, 212

Plasmas

Viscous damping of Alfvén normal modes in non-uniform plas-

Mok, Y. 172, 327

Elastic-collisional coupling between protons and helium atoms of interstellar origin in the heliospheric interface

Chassefière, E., Bertaux, J.L. 174, 239

A numerical study of steady-state shock acceleration Achterberg, A. 174, 329

The quasi-linear relaxation and bremsstrahlung of thick target electron beams in solar flares

McClements, K.G. 175, 255

Microwave emission of solar electron beams

Stähli, M., Benz, A.O. 175, 271

Electron-positron bremsstrahlung in thermal plasmas: simple analytical fits

Haug, E. 178, 292

Stabilization and consequences of relativistic electron bumps in extragalactic radio sources

Lesch, H., Schlickeiser, R. 179, 93

The method of projected characteristics for the evolution of magnetic arches

Nakagawa, Y., Hu, Y.Q., Wu, S.T. 179, 354

Some physical processes influencing the polarization of continuum and line radiation

Nagendra, K.N., Peraiah, A. 181, 71

Aspects of interplanetary plasma turbulence

Celnikier, L.M., Muschietti, L., Goldman, M.V. 181, 138

Relative emission-line strengths for FeVII in astrophysical plasmas

Keenan, F.P., Norrington, P.H. 181, 370

The theory of magnetic coronal heating

Vekstein, G.E. 182, 324

Five-colour (UBVRI) polarimetry of H 0139–68 = BL Hydri Piirola, V., Reiz, A., Coyne, G.V. 185, 189

Simultaneous five-colour (*UBVRI*) polarimetry of EF Eri *Piirola, V., Reiz, A., Coyne, G.V.* **186**, 120

The structure of ULF waves produced by a tethered satellite system

Wright, A.N. 186, 354

The pick-up of cometary protons by the solar wind

Neugebauer, M., Lazarus, A.J., Altwegg, K., Balsiger, H., Goldstein, B.E., Goldstein, R., Neubauer, F.M., Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E. 187, 21

Alfvénic turbulence in the solar wind flow during the approach to comet P/Halley

Johnstone, A.D., Coates, A.J., Heath, J., Thomsen, M.F., Wilken, B., Jockers, K., Formisano, V., Amata, E., Winningham, J.D., Borg, H., Bryant, D.A. 187, 25

Waves in the magnetic field and solar wind flow outside the bow shock at comet P/Halley

Johnstone, A., Glassmeier, K., Acuna, M., Borg, H., Bryant, D., Coates, A., Formisano, V., Heath, J., Mariani, F., Musmann, G., Neubauer, F., Thomsen, M., Wilken, B., Winningham, J. 187, 47

Solar wind flow through the comet P/Halley bow shock

Coates, A.J., Johnstone, A.D., Thomsen, M.F., Formisano, V., Amata, E., Wilken, B., Jockers, K., Winningham, J.D., Borg, H., Bryant, D.A. 187, 55

Macroscopic perturbations of the IMF by P/Halley as seen by the Giotto magnetometer

Raeder, J., Neubauer, F.M., Ness, N.F., Burlaga, L.F. 187, 61 Low-frequency magnetic field fluctuations in comet P/Halley's magnetosheath: Giotto observations

Glaßmeier, K.H., Neubauer, F.M., Acuña, M.H., Mariani, F. 187, 65

Fine structure of the magnetic field in comet P/Halley's coma Yeroshenko, Y.G., Styashkin, V.A., Riedler, W., Schwingenschuh, K., Russel, C.T. 187, 69

Giotto magnetic-field results on the boundaries of the pile-up region and the magnetic cavity

Neubauer, F.M. 187, 73

Identification of boundaries in the cometary environment from ac electric field measurements

Mogilevsky, M., Mikhailov, Y., Molchanov, O., Grard, R., Pedersen, A., Trotignon, J.G., Béghin, C., Formisano, V., Shapiro, V., Shevchenko, V. 187, 80

Dust observations of comet P/Halley by the plasma-wave analyser

Trotignon, J.G., Béghin, C., Grard, R., Pedersen, A., Formisano, V., Mogilevsky, M., Mikhailov, Y. 187, 83

Comparative study of the low-frequency waves near comet P/Halley during the Vega-1 and Vega-2 flybys

Savin, S., Avanesova, G., Balikhin, M., Wozniak, D., Wronowski, P., Klimov, S., Krawczyk, Z., Nozdrachev, M., Orlowski, D., Sokolov, A., Juchniewicz, J. 187, 89

Plasma-tail activity at the time of the Vega encounters Niedner, M.B., Jr., Schwingenschuh, K. 187, 103

Observations of cometary plasma-wave phenomena

Scarf, F.L., Coroniti, F.V., Kennel, C.F., Gurnett, D.A., Ip, W.-H., Smith, E.J. 187, 109

Hydromagnetic waves associated with cometary water group ions: Sakigake observation

Yumoto, K., Saito, T., Nakagawa, T. 187, 117

Spatial distribution of water-group ions near comet P/Halley observed by Suisei

Mukai, T., Miyake, W., Terasawa, T., Kitayama, M., Hirao, K. 187, 129

An interpretation of the ion pile-up region outside the ionospheric contact surface

Ip, W.-H., Schwenn, R., Rosenbauer, H., Balsiger, H., Neugebauer, M., Shelley, E.G. 187, 132

Description of the main boundaries seen by the Giotto electron experiment inside comet P/Halley-solar wind interaction region

d'Uston, C., Rème, H., Sauvaud, J.A., Cros, A., Anderson, K.A., Carlson, C.W., Curtis, D., Lin, R.P., Korth, A., Richter, A.K., Mendis, A. 187, 137

Ion temperature and flow profiles in comet P/Halley's close environment

Schwenn, R., Ip, W.-H., Rosenbauer, H., Balsiger, H., Bühler, F., Goldstein, R., Meier, A., Shelley, E.G. 187, 160

The composition and dynamics of cometary ions in the outer coma of comet P/Halley

Balsiger, H., Altwegg, K., Bühler, F., Fuselier, S.A., Geiss, J., Goldstein, B.E., Goldstein, R., Huntress, W.T., Ip, W.-H., Lazarus, A.J., Meier, A., Neugebauer, M., Rettenmund, U., Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E., Young, D.T. 187, 163

Giotto-IMS observations of ion-flow velocities and temperatures outside the magnetic cavity of comet P/Halley

Goldstein, B.E., Neugebauer, M., Balsiger, H., Drake, J., Fuselier, S.A., Goldstein, R., Ip, W.-H., Rettenmund, U., Rosenbauer, H., Schwenn, R., Shelley, E.G. 187, 174

Possible models on disturbances of the plasma tail of comet P/ Halley during the 1985–1986 apparition

Saito, T., Saito, K., Aoki, T., Yumoto, K. 187, 201

Structure and dynamics of the plasma tail of comet P/Halley. I. Knot event on December 31, 1985

Saito, T., Yumoto, K., Hirao, K., Minami, S., Saito, K., Smith, E. 187, 209

Structure and dynamics of the plasma tail of comet P/Halley. II. Kink event on January 10-11, 1986

Tomita, K., Saito, T., Minami, S. 187, 215

Hot ions observed by the Giotto ion mass spectrometer at the comet P/Halley contact surface

Goldstein, R., Young, D.T., Balsiger, H., Buehler, F., Goldstein, B.E., Neugebauer, M., Rosenbauer, H., Schwenn, R., Shelley, E.G. 187, 220

Energy spectra of energetic ions in the vicinity of comet P/Giacobini-Zinner

Richardson, I.G., Cowley, S.W.H., Moore, V., Staines, K., Hynds, R.J., Sanderson, T.R., Wenzel, K.-P., Daly, P.W. 187, 276

Plasma structures in comets P/Halley and Giacobini-Zinner Brandt, J.C., Niedner, M.B., Jr. 187, 281 The upstream region, foreshock and bow shock wave at comet P/ Halley from plasma electron measurements

Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Rème, H., Sauvaud, J.A., d'Uston, C., Korth, A., Richter, A.K., Mendis, D.A. 187, 290

Stochastic Fermi acceleration of ions in the pre-shock region of comet P/Halley

Gribov, B.E., Kecskeméty, K., Sagdeev, R.Z., Shapiro, V.D., Shevchenko, V.I., Somogyi, A.J., Szegö, K., Erdös, G., Eroshenko, E.G., Gringauz, K.I., Keppler, E., Marsden, R.G., Remizov, A.P., Richter, A.K., Riedler, W., Schwingenschuh, K., Wenzel, K.-P. 187, 293

Measurements of low energy electrons and spacecraft potentials near comet P/Halley

Pedersen, A., Grard, R., Trotignon, J.G., Beghin, C., Mikhailov, Y., Mogilevsky, M. 187, 297

Charge exchange of solar wind ions in the coma of comet P/Halley

Shelley, E.G., Fuselier, S.A., Balsiger, H., Drake, J.F., Geiss, J., Goldstein, B.E., Goldstein, R., Ip, W.-H., Lazarus, A.J., Neugebauer, M. 187, 304

Fluid simulation of comet P/Halley's ionosphere Baumgärtel, K., Sauer, K. 187, 307

Unusual characteristics of electromagnetic waves excited by cometary newborn ions with large perpendicular energies

Brinca, A.L., Tsurutani, B.T. 187, 311

Cometary MHD and chemistry

Wegmann, R., Schmidt, H.U., Huebner, W.F., Boice, D.C. 187, 339

Polarization

Center-to-limb variation of Stokes profiles and the diagnostics of solar magnetic fluxtubes

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 171, 305

Anomalous Zeeman effect and its influence on the line absorption and dispersion coefficients

Mathys, G., Stenflo, J.O. 171, 368

A polarimetric study of the Mon R 2 star-forming region Hodapp, K.-W. 172, 304

Observations of magnetic hydrogen lines in the white dwarf GD 229

Östreicher, R., Seifert, W., Ruder, H. Wunner, G. 173, L15 Diagnostics of solar magnetic fluxtubes with the infrared line Fe λ 15648.54 Å

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 173, 167

Polarimetry of visible and near-UV molecular bands: comets P/Halley and Hartley-Good

Le Borgne, J.F., Leroy, J.L., Arnaud, J. 173, 180

0.6 GHz mapping of extended radio galaxies. I. Edge-brightened double sources

Jägers, W.J. 175, 357; 67, 395

Anomalous Zeeman effect: moments and expansion coefficients Mathys, G., Stenflo, J.O. 175, 361; 67, 557

Five-colour (UBVRI) photopolarimetry of FK Comae and HD 199178

Huovelin, J., Piirola, V., Vilhu, O., Efimov, Y.S., Shakhovskoy, N.M. 176, 83

Very-Large-Array observations of a complex gradual solar burst at 6 cm wavelength

Kundu, M.R., McConnell, D., White, S.M., Shevgaonkar, R.K. 176, 131

Spurious variation of photospheric magnetic flux

Grossmann-Doerth, U., Pahlke, K.-D., Schüssler, M. 176, 139

Maximum entropy method for polarized images Shevgaonkar, R.K. 176, 159

A multifrequency radio continuum survey of M 33. I. Observations

Buczilowski, U.R., Beck, R. 176, 192; 68, 171

Polarimetry of SN 1987 A

Schwarz, H.E., Mundt, R. 177, L4

Polarimetric mapping of a new infrared reflection nebula GGD 27 IRS

Yamashita, T., Sato, S., Nagata, T., Suzuki, H., Hough, J.H., McLean, I.S., Garden, R., Gatley, I. 177, 258

Thermal and nonthermal radio emission from the Small Magellanic Cloud

Loiseau, N., Klein, U., Greybe, A., Wielebinski, R., Haynes, R.F. 178, 62

Polarimetry and imagery through uniaxial crystals. Application to solar observations with high spatial resolution

Semel, M. 178, 257

Mean properties of the polarization of the Fe XIII 10747 Å coronal emission line

Arnaud, J., Newkirk, G., Jr. 178, 263

Linear polarization of resonance lines in the absence of magnetic fields. I. Slabs of finite optical thickness

Faurobert, M. 178, 269

Temporal polarization variations of Be stars. II. Model fitting of polarimetric data

Clarke, D., McGale, P.A. 178, 294

Polarization of the cosmic background radiation in magnetic Bianchi type-II cosmologies

Fabbri, R., Tamburrano, M. 179, 11

Interstellar extinction and polarimetric properties of the star HD 200775

Pfau, W., Piirola, V., Reimann, H.-G. 179, 134

Resonance scattering of Lyman- α in the presence of an electrostatic field

Favati, B., Landi Degl'Innocenti, E., Landolfi, M. 179, 329 A survey of linear polarization along the Galactic Plane. The area $4.9 \le l \le 76^{\circ}$, $-1.5 \le b \le 1.5$

Junkes, N., Fürst, E., Reich, W. 180, 280; 69, 451

Polarization investigations in four peculiar supergiants with high IR excess

Joshi, U.C., Deshpande, M.R., Sen, A.K., Kulshrestha, A. 181, 31

Some physical processes influencing the polarization of continuum and line radiation

Nagendra, K.N., Peraiah, A. 181, 71

Polarization and infrared colors of symbiotic stars

Schulte-Ladbeck, R.E., Magalhães, A.M. 181, 213

Echelle and spectropolarimetric observations of the η Carinae nebulosity

Meaburn, J., Wolstencroft, R.D., Walsh, J.R. 181, 333

The relation between the visual polarisation and UV narrow absorption lines in irregular Be star variations

Brown, J.C., Henrichs, H.F. 182, 107

The magnetic field strength in the emission line region of the AM Her system EF Eridani (=2A0311-277)

Seifert, W., Östreicher, R., Wunner, G., Ruder, H. 183, L1

A unified treatment of polarized light emerging from a homogeneous plane-parallel atmosphere

Hovenier, J.W. 183, 363

The adding method for multiple scattering calculations of polarized light

de Haan, J.F., Bosma, P.B., Hovenier, J.W. 183, 371

Five-colour (UBVRI) polarimetry of H 0139-68 = BL Hydri Piirola, V., Reiz, A., Coyne, G.V. 185, 189

Erratum: Anomalous Zeeman effect: moments and expansion coefficients

Mathys, G., Stenflo, J.O. 185, 358; 70, 142

Simultaneous five-colour (UBVRI) polarimetry of EF Eri Piirola, V., Reiz, A., Coyne, G.V. 186, 120

Flux density and polarization observations of Hipparcos radio stars

Paredes, J.M., Estalella, R., Rius, A. 186, 177

Continuum versus line polarization at the center of the Orion nebula

Leroy, J.L., Le Borgne, J.F. 186, 322

Linear polarization of hydrogen Balmer lines in optically thick quiescent prominences. I. Theoretical investigation

Landi Degl'Innocenti, E., Bommier, V., Sahal-Bréchot, S. 186, 335

0.6 GHz mapping of extended radio galaxies. II. Edge-darkened double sources

Jägers, W.J. 186, 363; 71, 75

Unusual characteristics of electromagnetic waves excited by cometary newborn ions with large perpendicular energies

Brinca, A.L., Tsurutani, B.T. 187, 311

Polarimetry of comet P/Halley: continuum versus molecular bands

Le Borgne, J.F., Leroy, J.L., Arnaud, J. 187, 526

Circular polarization near the nucleus of comet P/Halley Metz, K., Haefner, R. 187, 539

The near-infrared polarization and color of comet P/Halley Brooke, T.Y., Knacke, R.F., Joyce, R.R. 187, 621

Complex refractive index of grain material deduced from the visible polarimetry of comet P/Halley

Mukai, T., Mukai, S., Kikuchi, S. 187, 650

The dust tail of comet P/Halley in April 1986 Lamy, P.L., Pedersen, H., Vio, R. 187, 661

Polarimetry of grains in the coma of P/Halley. I. Observations Dollfus, A., Suchail, J.-L. 187, 669

Polarimetry of comet P/Halley

Kikuchi, S., Mikami, Y., Mukai, T., Mukai, S., Hough, J.H. 187, 689

Comet P/Halley: implications of the mass distribution function for the photopolarimetric properties of the dust coma

Lamy, P.L., Grün, E., Perrin, J.M. 187, 767

A model for the intrinsic linear polarization of cool giant and supergiant stars

Marcondes-Machado, J.A. 188, 131

The optical polarization properties of blazars

Kulshrestha, A., Deshpande, M.R., Joshi, U.C. 188, 273; 71, 565

0.6 GHz mapping of extended radio galaxies. III. 3C 66B, NGC 1265, 3C 129, DA 240, 3C 236, 4C 48.29, IC 708 & IC 711, 4CT 51.29.1, 3C 310, Abell 2256, 3C 402 and 3C 465

Jägers, W.J. 188, 275; 71, 603

Positions; see Astrometry; Fundamental stars and other objects

Proper motions; see Astrometry; Fundamental stars and other objects

Protostars; see Stars: pre-main-sequence; Interstellar medium: clouds; Interstellar medium: kinematics and dynamics of

Pulsars: general

The radio luminosity of pulsars Stollman, G.M. 171, 152

The radio structure of supernova remnants

Manchester, R.N. 171, 205

Cyclotron line formation in a hot plasma including Compton cooling

Riffert, H. 172, 241

Neutron star spin evolution in wide low-mass X-ray binaries de Kool, M., van Paradijs, J. 173, 279

A search for X-ray emission from a nearby pulsar: PSR 1929+

Alpar, A., Brinkmann, W., Kızıloğlu, Ü., Ögelman, H., Pines, D. 177, 101

Pulsar characteristics at 24 GHz

Sieber, W., Wielebinski, R. 177, 342

Pulsar statistics

Stollman, G.M. 178, 143

The luminosity decay of radio pulsars and some related matters Fokker, A.D. 182, 41

Soft X-ray observations of the radio pulsar PSR 1055-52 Brinkmann, W., Ögelman, H. 182, 71

The pulsewidth-age relation of radio pulsars Candy, B.N., Blair, D.G. 183, L17

Soft X-ray imaging observations of the 39 millisecond pulsar PSR

Ögelman, H., Buccheri, R. 186, L17

Neutral hydrogen absorption measurements of ten pulsars and the electron density in the galactic plane

Weisberg, J.M., Rankin, J.M., Boriakoff, V. 186, 307

Pulsars: individual

Search for pulsed emission of very high energy gamma rays from Geminga

Bhat, P.N., Gopalakrishnan, N.V., Ramana Murthy, P.V., Swaminathan, S., Vishwanath, P.R. 171, 84

Crah

A detailed analysis of the high energy gamma-ray emission from the Crab pulsar and nebula

Clear, J., Bennett, K., Buccheri, R., Grenier, I.A., Hermsen, W., Mayer-Hasselwander, H.A., Sacco, B. 174, 85

PSR 0833-45

Very high energy gamma-rays from the Vela pulsar Bhat, P.N., Gupta, S.K., Ramana Murthy, P.V., Sreekantan, B.V., Tonwar, S.C., Vishwanath, P.R. 178, 242

PSR 1055-52

Soft X-ray observations of the radio pulsar PSR 1055-52 Brinkmann, W., Ögelman, H. 182, 71

PSR 1929+10

A search for X-ray emission from a nearby pulsar: PSR 1929+10

Alpar, A., Brinkmann, W., Kızıloğlu, Ü., Ögelman, H., Pines, D. 177, 101

PSR 1951+32

Soft X-ray imaging observations of the 39 millisecond pulsar PSR 1951+32

Ögelman, H., Buccheri, R. 186, L17

Vela

Very high energy gamma-rays from the Vela pulsar Bhat, P.N., Gupta, S.K., Ramana Murthy, P.V., Sreekantan, B.V., Tonwar, S.C., Vishwanath, P.R. 178, 242

Quasars: general

A gravitational lens origin for AGN-variability? Consequences of micro-lensing

Schneider, P., Weiss, A. 171, 49

Multifrequency observations of low frequency variable sources: a statistical analysis

Padrielli, L., Aller, M.F., Aller, H.D., Fanti, C., Fanti, R., Ficarra, A., Gregorini, L., Mantovani, F., Nicolson, G. 173, 215; 67, 63

Investigation of a complete sample of flat spectrum radio sources from the S5 survey. II. Results

Eckart, A., Witzel, A., Biermann, P., Johnston, K.J., Simon, R., Schalinski, C., Kühr, H. 173, 217; 67, 121

VLA observations of B2 quasars, II. Compact sources Rogora, A., Padrielli, L., de Ruiter, H.R. 173, 418; 67, 267

A simple imaging procedure for gravitational lenses Schramm, T., Kayser, R. 174, 361

Quasar candidates in the field of SA 94. II. Objective-prism classification of the US objects

Barbieri, C., Cristiani, S., Iovino, A., Nota, A. 175, 361; 67, 551

Redshifts of quasar candidates

Cristiani, S., Koehler, B. 176, 196; 68, 339

The radio to X-ray continuum emission of the quasar 3C 273 and its temporal variations

Courvoisier, T.J.-L., Turner, M.J.L., Robson, E.I., Gear, W.K., Staubert, R., Blecha, A., Bouchet, P., Falomo, P., Valtonen, M., Teräsranta, H. 176, 197

Geometry of the mass-outflows around broad absorption line QSOs and formation of the complex $Ly\alpha + Nv$ line profile

 Surdej, J., Hutsemékers, D. 177, 42
 First results of a spectroscopic search for gravitational mirages Reboul, H., Vanderriest, C., Fringant, A.M., Cayrel, R. 177,

Observational study of the Hubble diagram Wampler, E.J. 178, 1

Line and continuum radiation from the outer region of accretion discs in active galactic nuclei. I. Preliminary considerations

Collin-Souffrin, S. 179, 60

Apparent number density enhancement of quasars near foreground galaxies due to gravitational lensing. I. Amplification cross sections

Schneider, P. 179, 71

Apparent number density enhancement of quasars near foreground galaxies due to gravitational lensing. II. The amplification probability distribution and results

Schneider, P. 179, 80

Stabilization and consequences of relativistic electron bumps in extragalactic radio sources

Lesch, H., Schlickeiser, 'R. 179, 93

Comprehensive study of the QSO-galaxy pair 1327-206 and the extent of low ionization galactic haloes

Bergeron, J., D'Odorico, S., Kunth, D. 180, 1

FIR galaxies with compact radio cores

Chini, R., Biermann, P.L., Kreysa, E., Kühr, H., Mezger, P.G., Schmidt, J., Witzel, A., Zensus, J.A. 181, 237

Arcs, light echoes, and supergalaxies

Katz, J.I. 182, L19

The light-echo model for luminous arcs Milgrom, M. 182, L21

Flux density measurements of faint radio sources at 2.7 and 4.75 GHz

Forkert, T., Altschuler, D.R. 182, 361; 70, 77

Warm IRAS sources. I. A catalogue of AGN candidates from the point source catalog

de Grijp, M.H.K., Miley, G.K., Lub, J. 182, 362; 70, 95

Magnetic field and synchrotron radiation in mildly relativistic shocks

Courvoisier, T.J.-L., Camenzind, M. 183, 167

Statistical gravitational lensing: influence of compact objects on the number counts of quasars

Schneider, P. 183, 189

The inverse Compton test for a large sample of compact radio sources

Biermann, P.L., Kühr, H., Snyder, W.A., Zensus, J.A. 185, 9 Five years monitoring of extragalactic radio sources. I. Observations at 12, 22 and 37 GHz

Salonen, E., Teräsranta, H., Urpo, S., Tiuri, M., Moiseev, I.G., Nesterov, N.S., Valtaoja, E., Haarla, S., Lehto, H., Valtaoja, L., Teerikorpi, P., Valtonen, M. 185, 356; 70, 409

The bright OSO GD 1339

Bues, I., Kollatschny, W., Fricke, K.J., Schönknecht, G. 186, 99

77 GHz continuum observations of variable extragalactic sources

Teräsranta, H., Valtaoja, E., Haarala, S., Elo, A.-M., Valtonen, M., Salonen, E., Urpo, S., Tiuri, M., Laurikainen, E. 186, 364; 71, 125

Optical identifications and radio morphology of the complete 5 GHz S5 survey

Kühr, H., Johnston, K.J., Odenwald, S., Adlhoch, J. 188, 272; 71, 493

The optical polarization properties of blazars

Kulshrestha, A., Deshpande, M.R., Joshi, U.C. 188, 273; 71, 565

Quasars: individual

EXOSAT observations of a broad absorption-line quasar: PHL 5200

Singh, K.P., Westergaard, N.J., Schnopper, H.W. 172, L11

Observation of the H II galaxy giving origin to the z = 0.3930 absorption system of the QSO 1209 + 107

Cristiani, S. 175, L1

Hard X-ray observations of the quasar 3C273

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V., Venkatesan, D. 182, L1

1300 µm detection of the radio-quiet quasar 13349 + 2438 Chini, R., Kreysa, E., Salter, C.J. 182, L63

GD 1339

The bright QSO GD 1339

Bues, I., Kollatschny, W., Fricke, K.J., Schönknecht, G. 186, 99

OJ 287

The correlation between radio and optical variations in OJ 287 Valtaoja, L., Sillanpää, A., Valtaoja, E. 184, 57

3C 273

The radio to X-ray continuum emission of the quasar 3C 273 and its temporal variations

Courvoisier, T.J.-L., Turner, M.J.L., Robson, E.I., Gear, W.K., Staubert, R., Blecha, A., Bouchet, P., Falomo, P., Valtonen, M., Teräsranta, H. 176, 197

Erratum: Hard X-ray observations of the quasar 3C 273

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V.,

Venkatesan, D. 186, L20

4 C 37.43

Extended ionized nebulosities in the galaxies Mk 1, Mk 3, Mk 348 and the quasar $4\,C$ 37.43

Bergeron, J., Durret, F. 184, 93

4C 39.25

Radio source structure from geodetic VLBI observations: 8 GHz multi-epoch maps of the quasar 4C 39.25

Tang, G., Rönnäng, B., Baath, L. 185, 87

Quasars: jets of

EVN and MERLIN observations of five superlúminal radio sources

Pilbratt, G., Booth, R.S., Porcas, R.W. 173, 12

Alternating side ejection or precession of jets in radio sources *Roos, N., Meurs, E.J.A.* 181, 14

Hydromagnetic flows from rapidly rotating compact objects. II. The relativistic axisymmetric jet equilibrium Camenzind, M. 184, 341

Quasars: redshifts of

Observation of the H II galaxy giving origin to the z = 0.3930 absorption system of the QSO 1209 + 107

Cristiani, S. 175, L1

Quasar candidates in the field of SA 94. II. Objective-prism classification of the US objects

Barbieri, C., Cristiani, S., Iovino, A., Nota, A. 175, 361; 67, 551

Redshifts of quasar candidates

Cristiani, S., Koehler, B. 176, 196; 68, 339

First results of a spectroscopic search for gravitational mirages Reboul, H., Vanderriest, C., Fringant, A.M., Cayrel, R. 177, 337

Observational study of the Hubble diagram Wampler, E.J. 178, 1

The bright OSO GD 1339

Bues, I., Kollatschny, W., Fricke, K.J., Schönknecht, G. 186,

Radar astronomy

Searches for interstellar and circumstellar metal oxides and chlorides

Millar, T.J., Elldér, J., Hjalmarson, A., Olofsson, H. 182, 143

Radial velocities: see also Galaxy (the): kinematics and dynamics of; Galaxies: redshifts of; Quasars: redshift of

Stellar granulation. I. The observability of stellar photospheric convection

Dravins, D. 172, 200

Stellar granulation. II. Stellar photospheric line asymmetries Dravins, D. 172, 211 Computed spectral line variations of oblique non-radial pulsators

Baade, D., Weiss, W.W. 173, 217; 67, 147

Results of interferometric observations of the F-corona radial velocity field between 3 and 7 solar radii

Shcheglov, P.V., Shestakova, L.I., Ajmanov, A.K. 173, 383

Absolute dimensions of eclipsing binaries. X. V 1143 Cygni Andersen, J., Garcia, J.M., Giménez, A., Nordström, B. 174, 107

Determination of the radii of Cepheids. IV. Dimensions of HV 879, HV 899, HV 909, HV 2257, HV 2338, HV 2827 and the distance of the Large Magellanic Cloud (Text in French)

Imbert, M. 175, 30

Interpretation of F-corona radial velocity observations Shestakova, L.I. 175, 289

Radial velocities of southern stars obtained with the photoelectric scanner CORAVEL. VI. 233 F to M type stars in and near the Small Magellanic Cloud. Comparison with 80 spectrographic radial velocities of O to K type stars in this Galaxy

Maurice, E., Andersen, J., Ardeberg, A., Bardin, C., Imbert, M., Lindgren, H., Martin, N., Mayor, M., Nordström, B., Prévot, L., Rebeirot, E., Rousseau, J. 175, 358; 67, 423

Kinematics of young open clusters and the rotation curve of our Galaxy

Hron, J. 176, 34

Radial velocities of bright southern stars. VI. Standard and reference stars 1983–1986

Andersen, J., Nordström, B., Jensen, K.S. 176, 196; 68, 347 The kinematics of H II regions. I. The velocity field of the Lagoon nebula (M 8)

Hänel, A. 176, 338

The kinematics of H $\scriptstyle\rm II$ regions. II. The large-scale velocity field of M 42/43 and NGC 1977

Hänel, A. 176, 347

Systematic differences between "classical" radial velocities Brosche, P., Frantzen, H.P. 176, 367

List of radial velocities of 258 stars near Alpha Persei (Text in French)

Fehrenbach, C., Burnage, R., Figuière, J., Traversa, G., Agniel, C. 177, 352; 68, 515

A study of multiple stellar systems with CORAVEL (I) Duquennoy, A. 178, 114

A new statistical method to derive radial velocity shifts from stellar spectra

de Loore, C., Monderen, P., Rousseeuw, P. 178, 307

The Baade-Wesselink method applied to field RR Lyrae stars. I. UVBRI photoelectric and radial velocity data

Cacciari, C., Clementini, G., Prévot, L., Lindgren, H., Lolli, M., Oculi, L. 178, 325; 69, 135

The nucleus of LT-5: an unusual triple system?

Jasniewicz, G., Duquennoy, A., Acker, A. 180, 145

The pulsation modes of CO Aur

Babel, J., Burki, G. 181, 34

The Perseus supercluster at low galactic latitudes Hauschildt, M. 184, 43

Studies of dynamical properties of globular clusters. III. Anisotropy in ω Centauri

Meylan, G. 184, 144

Radial velocities in three fields along the southern galactic equa-

Denoyelle, J. 185, 355; 70, 373

Erratum: List of radial velocities of 258 stars near Alpha Persei Fehrenbach, C., Burnage, R., Figuière, J., Traverse, G., Agniel, C. 186, 366; 71, 185

The local kinematics of open star clusters Lyngå, G., Palouš, J. 188, 35

Orbital elements for double stars of Population II. The highvelocity system COD-48° 1741

Lindgren, H., Ardeberg, A., Zuiderwijk, E. 188, 39

Radial velocities. I. Ground-based measurements for Hipparcos Fehrenbach, C., Burnage, R., Duflot, M., Peton, A., Rolland, L., Genty, V., Mannone, C. 188, 267; 71, 263

Radial velocities. II. Ground-based measurements for Hipparcos

Fehrenbach, C., Duflot, M., Burnage, R., Mannone, C., Peton, A., Genty, V. 188, 267; 71, 275

Radiation mechanisms: general

Electron-positron jets from gamma-ray beams Lovelace, R.V.E. 173, 237

Electron-positron bremsstrahlung in thermal plasmas: simple analytical fits

Haug, E. 178, 292

A comparison of coronal X-ray emission observed with the Einstein and EXOSAT observatories

Schmitt, J.H.M.M., Pallavicini, R., Monsignori-Fossi, B.C., Harnden, F.R., Jr. 179, 193

1300 µm detection of the radio-quiet quasar 13349 + 2438 Chini, R., Kreysa, E., Salter, C.J. 182, L63

Microwave radiation from a dense magneto-active plasma Klein, K.-L. 183, 341

The inverse Compton test for a large sample of compact radio sources

Biermann, P.L., Kühr, H., Snyder, W.A., Zensus, J.A. 185, 9 Near-infrared excesses of barium stars

Hakkila, J., McNamara, B.J. 186, 255

Unusual characteristics of electromagnetic waves excited by cometary newborn ions with large perpendicular energies

Brinca, A.L., Tsurutani, B.T. 187, 311

Radiation formation of a non-volatile comet crust Johnson, R.E., Cooper, J.F., Lanzerotti, L.J., Strazzulla, G. 187, 889

Radiation mechanisms: synchrotron radiation

Radio outbursts in HR 1099: quantitative analysis of flux spectrum and intensity distribution

Klein, K.-L., Chiuderi-Drago, F. 175, 179

The radio to X-ray continuum emission of the quasar 3C 273 and its temporal variations

Courvoisier, T.J.-L., Turner, M.J.L., Robson, E.I., Gear, W.K., Staubert, R., Blecha, A., Bouchet, P., Falomo, P., Valtonen, M., Teräsranta, H. 176, 197

Second-order Fermi acceleration and radio spectral index distributions in supernova remnants and bright spiral galaxies

Dröge, W., Lerche, I., Schlickeiser, R. 178, 252

The optical spectral index in the south radio lobe of 3C33 Crane, P., Stockton, A., Saslaw, W.C. 183, 16

Magnetic field and synchrotron radiation in mildly relativistic shocks

Courvoisier, T.J.-L., Camenzind, M. 183, 167

Microwave radiation from a dense magneto-active plasma Klein, K.-L. 183, 341 Radiation transfer; see also Lines, formation

Anomalous Zeeman effect and its influence on the line absorption and dispersion coefficients

Mathys, G., Stenflo, J.O. 171, 368

Cyclotron line formation in a hot plasma including Compton cooling

Riffert, H. 172, 241

SiO emission from the Orion KL region

Zeng, Q., Sun, J., Lou, G.F. 172, 299

Revisited mass-loss rates for the nuclei of the planetary nebulae NGC 6210, NGC 6826 and NGC 6543: the first order moment W_1 of subordinate line profiles

Hutsemékers, D., Surdej, J. 173, 101

Radiative transfer in a spherical dust cloud. I. Exact results for isotropic scattering

van de Hulst, H.C. 173, 115

Computed He II spectra for Wolf-Rayet stars: a grid of models Hamann, W.-R., Schmutz, W. 174, 173

Multidimensional radiative transfer in stratified atmospheres. IV. Radiative cooling by LTE and non-LTE spectral lines

Trujillo-Bueno, J., Kneer, F. 174, 183

Non-thermal excitation and ionization of hydrogen in solar flares. II. Effects on the temperature minimum region: energy balance and white light flares

Aboudarham, J., Henoux, J.C. 174, 270

Semi-empirical models of a quiescent prominence

Zhang, Q.Z., Fang, C. 175, 277

Anomalous Zeeman effect: moments and expansion coefficients Mathys, G., Stenflo, J.O. 175, 361; 67, 557

The opacity of the dust around the carbon star IRC + 10216 Le Bertre, T. 176, 107

The circumstellar shell of IRC + 10216: photo-chemistry of C_2H and CN

Truong-Bach, Nguyen-Q-Rieu, Omont, A., Olofsson, H., Johansson, L.E.B. 176, 285

The formation of interstellar molecular lines in a turbulent velocity field with finite correlation length

Albrecht, M.A., Kegel, W.H. 176, 317

An LTE analysis of the solar photospheric Ti1 and Cr1 spectra: evidence for non-LTE in excitation

Blackwell, D.E., Booth, A.J., Menon, S.L.R., Petford, A.D. 180, 229

Effects of dust on the formation of lines in an expanding spherical medium

Peraiah, A., Varghese, B.A., Rao, M.S. 180, 278; 69, 345

Transfer of resonant line photons in spherically accelerating envelopes

Beckwith, S., Natta, A. 181, 57

Some physical processes influencing the polarization of continuum and line radiation

Nagendra, K.N., Peraiah, A. 181, 71

Multidimensional radiative transfer in stratified atmospheres. V. Energy transport by radiation

Kneer, F., Trujillo-Bueno, J. 183, 91

Line profiles from moving spherical shells

Bertout, C., Magnan, C. 183, 319

Formation of the hydrogen spectrum in quiescent prominences: one-dimensional models with standard partial redistribution

Heinzel, P., Gouttebroze, P., Vial, J.-C. 183, 351

A unified treatment of polarized light emerging from a homogeneous plane-parallel atmosphere

Hovenier, J.W. 183, 363

Su

The adding method for multiple scattering calculations of polarized light

de Haan, J.F., Bosma, P.B., Hovenier, J.W. 183, 371

Model atmospheres for type I supernovae: curvature effects López, R., Simonneau, E., Isern, J. 184, 249

Probabilistic interpretation of radiative transfer. I. The $\sqrt{\epsilon}$ -law Hubeny, I. 185, 332

Probabilistic interpretation of radiative transfer. II. Rybicki equation

Hubeny, I. 185, 336

Erratum: Anomalous Zeeman effect: moments and expansion coefficients

Mathys, G., Stenflo, J.O. 185, 358; 70, 142

The 2.7 µm water band of comet P/Halley: interpretation of observations by an excitation model

Bockelée-Morvan, D., Crovisier, J. 187, 425

Radio continuum

The radio structure of supernova remnants

Manchester, R.N. 171, 205

Circumnuclear star formation in the central region of the barred spiral galaxy NGC 1097

Hummel, E., van der Hulst, J.M., Keel, W.C. 172, 32

Multifrequency observations of low frequency variable sources: a statistical analysis

Padrielli, L., Aller, M.F., Aller, H.D., Fanti, C., Fanti, R., Ficarra, A., Gregorini, L., Mantovani, F., Nicolson, G. 173, 215; 67, 63

VLA observations of B2 quasars, II. Compact sources

Rogora, A., Padrielli, L., de Ruiter, H.R. 173, 418; 67, 267

Microwave emission of solar electron beams

Stähli, M., Benz, A.O. 175, 271

0.6 GHz mapping of extended radio galaxies. I. Edge-brightened double sources

Jägers, W.J. 175, 357; 67, 395

The Large Magellanic Cloud at 45 MHz: a symmetric but warped galaxy

Alvarez, H., Aparici, J., May, J. 176, 25

Optical emission-line activity and radio continuum power in the nuclei of spiral galaxies

Giuricin, G., Mardirossian, F., Mezzetti, M. 176, 175

High resolution 5 GHz flux-densities of sources in M 31 Israel, F.P. 176, 191; 68, 109

A multifrequency radio continuum survey of M 33. I. Observa-

Buczilowski, U.R., Beck, R. 176, 192; 68, 171

The radio to X-ray continuum emission of the quasar 3C 273 and its temporal variations

Courvoisier, T.J.-L., Turner, M.J.L., Robson, E.I., Gear, W.K., Staubert, R., Blecha, A., Bouchet, P., Falomo, P., Valtonen, M., Teräsranta, H. 176, 197

A continuum survey of dwarf galaxies at 1400 MHz, II

Altschuler, D.R., Giovanardi, C., Pantoja, C.A. 177, 22

Thermal and nonthermal radio emission from the Small Magellanic Cloud

Loiseau, N., Klein, U., Greybe, A., Wielebinski, R., Haynes, R.F. 178, 62

VLA observations of low luminosity radio galaxies. IV. The B2 sample revisited

Fanti, C., Fanti, R., de Ruiter, H.R., Parma, P. 178, 323; 69, 57

A catalogue of stars emitting radio continuum

Wendker, H.J. 178, 324; 69, 87

Radio observations of the first ranked galaxies in A98, A115, A160, A278, and A568

Giovannini, G., Feretti, L., Gregorini, L. 178, 325; 69, 171

Multifrequency radio continuum observations of extended galactic objects. II. Eleven objects from the 2695 MHz Effelsberg galactic plane survey

Fürst, E., Handa, T., Reich, W., Reich, P., Sofue, Y. 180, 279; 69, 403

A survey of linear polarization along the Galactic Plane. The area $4^{\circ}9 \le l \le 76^{\circ}$, $-1^{\circ}5 \le b \le 1^{\circ}5$

Junkes, N., Fürst, E., Reich, W. 180, 280; 69, 451

A further study of the relation of the radio-far-infrared in galaxies. I. Observations and data processing

Wunderlich, E., Klein, U., Wielebinski, R. 180, 281; 69, 487 32 GHz radio continuum observations of four plerionic super-

nova remnants Morsi, H.W., Reich, W. 180, 282; 69, 533

VLA observations of low-luminosity radio galaxies. VI. Discussion of radio jets

Parma, P., Fanti, C., Fanti, R., Morganti, R., de Ruiter, H.R. 181. 244

The diffuse radio emission from the Coma cluster

Schlickeiser, R., Sievers, A., Thiemann, H. 182, 21

Flux density measurements of faint radio sources at 2.7 and 4.75 $\,\mathrm{GHz}$

Forkert, T., Altschuler, D.R. 182, 361; 70, 77

The unusual radio outburst of Nova Vulpeculae 1984 No. 2

Taylor, A.R., Seaquist, E.R., Hollis, J.M., Pottasch, S.R. 183,
38

VLA observations of low luminosity radio galaxies. V. A detailed radio study of five jets

Morganti, R., Fanti, C., Fanti, R., Parma, P., de Ruiter, H.R. 183, 203

A 300 pc thermal spur associated with the H II region S 54 Müller, P., Reif, K., Reich, W. 183, 327

Multi-frequency radio continuum observations of NGC 5236 (M83)

Sukumar, S., Klein, U., Gräve, R. 184, 71

NLTE models for cocoon stars

Höflich, P., Wehrse, R. 185, 107

Five years monitoring of extragalactic radio sources. I. Observations at 12, 22 and 37 $\rm GHz$

Salonen, E., Teräsranta, H., Urpo, S., Tiuri, M., Moiseev, I.G., Nesterov, N.S., Valtaoja, E., Haarla, S., Lehto, H., Valtaoja, L., Teerikorpi, P., Valtonen, M. 185, 356; 70, 409

The effects of interactions on spiral galaxies. III. A radio continuum survey of galactic nuclei at 1.49 GHz

Hummel, E., van der Hulst, J.M., Keel, W.C., Kennicutt, R.C., Jr. 185, 358; 70, 517

The magnetic field in M 51

Beck, R., Klein, U., Wielebinski, R. 186, 95

The identification of galactic radio sources based on a comparison of radio-continuum and infrared emission

Fürst, E., Reich, W., Sofue, Y. 186, 362; 71, 63

10.7 GHz continuum observations of comet P/Halley

Falchi, A., Gagliardi, L., Palagi, F., Tofani, G., Comoretto, G. 187, 462

32 GHz radio continuum observations of four shell-type supernova remnants

Morsi, H.W., Reich, W. 188, 265; 71, 189

Radio galaxies; see Galaxies, radio

Radio lines: molecular

Limits on the cool gas content of NGC 1275 and M 87 Jaffe, W. 171, 378

Detection of HCN in comet P/Halley

Winnberg, A., Ekelund, L., Ekelund, A. 172, 335

Very cold IRAS objects and pre-planetary nebulae: CO observa-

Likkel, L., Omont, A., Morris, M., Forveille, T. 173, L11
Mapping of a molecular complex in a northern spiral arm of

M 31 Casoli, F., Combes, F., Stark, A.A. 173, 43

Cloud temperatures from ammonia observations Kuiper, T.B.H. 173, 209

High resolution ¹²CO observations of the central parts of the interacting galaxy NGC 3628

Boissé, P., Casoli, F., Combes, F. 173, 229

Clumps in IC 348: temperature and density profiles of dense cores

Bachiller, R., Guilloteau, S., Kahane, C. 173, 324

Molecular line observations of IC 443. The interaction of a molecular cloud and an interstellar shock

White, G.J., Rainey, R., Hayashi, S.S., Kaifu, N. 173, 337

A search for CH abundance variations towards L134

Jacq, T., Baudry, A., Despois, D., Gérard, E., Johansson, L.E.B. 173, 347

Detection of a heavy radical in IRC+10216: The hexatriynyl radical C_6H ?

Guélin, M., Cernicharo, J., Kahane, C., Gomez-Gonzalez, J., Walmsley, C.M. 175, L5

SiO maser emission in evolved stars: relation to IR continuum Bujarrabal, V., Planesas, P., del Romero, A. 175, 164

IRAS 09371+1212: an icy evolved, mass-losing star with a unique IR spectrum

Forveille, T., Morris, M., Omont, A., Likkel, L. 176, L13

A new strong maser: HCN

Guilloteau, S., Omont, A., Lucas, R. 176, L24

OH emission and absorption in bipolar flows Clark, F.O., Turner, B.E. 176, 114

The velocity field of the outer Galaxy in the Southern Hemisphere. II. CO observations of galactic nebulae

Brand, J., Blitz, L., Wouterloot, J.G.A., Kerr, F.J. 176, 188; 68,

Rotational and vibrational synthetic spectra of linear parent molecules in comets

Crovisier, J. 176, 194; 68, 223

The circumstellar shell of IRC + 10216: photo-chemistry of C_2H and CN

Truong-Bach, Nguyen-Q-Rieu, Omont, A., Olofsson, H., Johansson, L.E.B. 176, 285

High angular resolution CO mapping of the high velocity gas associated with HL/XZ Tau and V 645 Cygni (GL 2789)

Torrelles, J.M., Anglada, G., Rodríguez, L.F., Cantò, J., Barral, J.F. 177, 171

The molecular counterparts of the submillimeter compact sources in L 1551 and B 335

Walmsley, C.M., Menten, K.M. 179, 231

Millimetre and submillimetre molecular line observations of the southwest lobe of L 1551: evidence of a shell structure

Rainey, R., White, G.J., Richardson, K.J., Griffin, M.J., Cronin, N.J., Monteiro, T.S., Hilton, J. 179, 237

Dark clouds in front of globular clusters

Sandell, G., Stevens, M.A., Heiles, C. 179, 255

A survey of formaldehyde in high galactic latitudes Heithausen, A., Mebold, U., de Vries, H.W. 179, 263

New CO and HCN sources associated with IRAS carbon stars Nguyen-Q-Rieu, Epchtein, N., Truong-Bach, Cohen, M. 180, 117

Ammonia in the galactic halo and the infrared cirrus Mebold, U., Heithausen, A., Reif, K. 180, 213

Molecular observations of comets P/Giacobini-Zinner 1984e and P/Halley 1982i at millimetre wavelengths

Bockelée-Morvan, D., Crovisier, J., Despois, D., Forveille, T., Gérard, E., Schraml, J., Thum, C. 180, 253

C₆H: astronomical study of its fine and hyperfine structure Cernicharo, J., Guélin, M., Menten, K.M., Walmsley, C.M. 181. L1

Sulfur in IRC+10216

Cernicharo, J., Guélin, M., Hein, H., Kahane, C. 181, L9

OH observations of galactic radio H II regions Braz, M.A., Sivagnanam, P. 181, 19

CO and NH₃ detection of the cone in NGC 2264 Pagani, L.P., Nguyen-Q-Rieu 181, 112

Magnetic field strengths in molecular clouds

Crutcher, R.M., Kazès, I., Troland, T.H. 181, 119

Vibrationally excited CS in IRC+10216 Turner, B.E. 182, L15

New doublets in IRC+10216: Vibrationally excited C₄H? Guélin, M., Cernicharo, J., Navarro, S., Woodward, D.R., Gottlieb, C.A., Thaddeus, P. 182, L37

Shape of the visual light curve and detection of a 1.35 cm H₂O line in single M Miras

Vardya, M.S. 182, 75

A multilevel study of ammonia in star forming regions. II. G 34.3+0.2, a new "hot core"

Henkel, C., Wilson, T.L., Mauersberger, R. 182, 137

Deuterated water in Orion-KL and NGC 7538

Henkel, C., Mauersberger, R., Wilson, T.L., Snyder, L.E., Menten, K.M., Wouterloot, J.G.A. 182, 299

Metals in IRC+10216: detection of NaCl, AlCl and KCl, and tentative detection of AlF

Cernicharo, J., Guélin, M. 183, L10

Detection of vibrationally excited SiS in IRC+10216 Turner, B.E. 183, L23

Molecular clouds in the vicinity of the semicircular supernova remnant G 109.1 – 1.0

Tatematsu, K., Fukui, Y., Nakano, M., Kogure, T., Ogawa, H., Kawabata, K. 184, 279

Molecular line observations of the H II region G34.3+0.2

Matthews, N., Little, L.T., Macdonald, G.H., Andersson, M., Davies, S.R., Riley, P.W., Dent, W.R.F., Vizard, D. 184, 284 Hydrogen recombination lines: a model of the temperature and

Wilson, T.L., Jäger, B. 184, 291

density in Orion A

Rotationally excited OH in megamaser galaxies

Henkel, C., Güsten, R., Baan, W.A. 185, 14

VLA observations of the 6 cm and 2 cm lines of H_2CO in the direction of W 3(OH)

Dickel, H.R., Goss, W.M. 185, 271

NGC 2264: a molecular line study

Krügel, E., Güsten, R., Schulz, A., Thum, C. 185, 283

Laboratory study of the rotational spectrum of vibrationally excited C_2H

Woodward, D.R., Pearson, J.C., Gottlieb, C.A., Guélin, M., Thaddeus, P. 186, L14

- The spectral hallmark of a contracting protostellar fragment Anglada, G., Rodríguez, L.F., Cantó, J., Estalella, R., López, R. 186, 280
- 18-cm wavelength radio monitoring of the OH radical in comet P/Halley (1982i)
 - Gérard, E., Bockelée-Morvan, D., Bourgois, G., Colom, P., Crovisier, J. 187, 455
- OH radio observations of comet P/Halley
 - Schloerb, F.P., Claussen, M.J., Tacconi-Garman, L. 187, 469
- Observations of HCN in comet P/Halley
 - Schloerb, F.P., Kinzel, W.M., Swade, D.A., Irvine, W.M. 187, 475
- The detection of extragalactic methanol
 - Henkel, C., Jacq, T., Mauersberger, R., Menten, K.M., Steppe, H. 188, L1

Radio lines: recombination

- Southern H II regions: an extensive study of radio recombination line emission
 - Caswell, J.L., Haynes, R.F. 171, 261
- Carbon radio recombination line observations of W3
 - Roelfsema, P.R., Goss, W.M., Wilson, T.L. 174, 232
- VLA hydrogen and helium 76 α line observations of Sagittarius B 2 $\,$
- Roelfsema, P.R., Goss, W.M., Whiteoak, J.B., Gardner, F.F., Pankonin, V. 175, 219
- The warm C $\scriptstyle\rm II$ region between the hot ionized region S 64 = W 40 and the cold molecular cloud G 28.74 + 3.52
 - Vallée, J.P. 178, 237
- A 300 pc thermal spur associated with the H II region S 54 Müller, P., Reif, K., Reich, W. 183, 327
- Centimeter and millimeter recombination lines from W3 (OH): Expansion or champagne flow?
 - Wilson, T.L., Mauersberger, R., Brand, J., Gardner, F.F. 186,

Radio lines: 21-cm

- Limits on the cool gas content of NGC 1275 and M 87 Jaffe, W. 171, 378
- Malmquist bias, type effect and dispersion in the Tully-Fisher re-
 - Giraud, E. 174, 23
- Ara OB1: A stellar association formed by the action of an energetic event?
 - Arnal, E.M., Cersosimo, J.C., May, J., Bronfman, L. 174, 78
- The distribution of H_I in the lenticular galaxy NGC 2787 Shostak, G.S. 175, 4
- A survey of the neutral atomic hydrogen in M 33
- Deul, E.R., van der Hulst, J.M. 175, 360; 67, 509 Detection of neutral hydrogen in the planetary nebula IC 418
- Taylor, A.R., Pottasch, S.R. 176, L5
- Dark matter associated with binary galaxies van Moorsel, G.A. 176, 13
- The neutral hydrogen content of red spiral galaxies
 - van der Hulst, J.M., Skillman, E.D., Kennicutt, R.C. Bothun, G.D. 177, 63
- A statistical method to derive the true distribution of an astronomical parameter some values of which are known only by limits
 - Chamaraux, P. 177, 326
- H1 observations of galaxies in between the Local and the Hydra/ Centaurus superclusters
 - Richter, O.-G., Huchtmeier, W.K. 177, 351; 68, 427

- A search for diffuse neutral hydrogen in filaments of galaxies Altschuler, D.R., Davis, M.M., Giovanardi, C. 178, 16
- Kinematics and physical parameters of neutral hydrogen in the inner Galaxy
 - Rohlfs, K., Kreitschmann, J. 178, 95
- Note on comparative analysis of the H_I content in galaxies Giraud, E. 178, 310
- HI observations of lenticular and early type galaxies
 - Chamaraux, P., Balkowski, C., Fontanelli, P. 178, 326; 69, 261
- Malmquist bias in the determination of the distance to the Hercules supercluster
 - Giraud, E. 180, 50
- Systematics of the Tully-Fisher relation in the B V system Giraud, E. 180, 57
- A survey for H 1 in voids
 - Hulsbosch, A.N.M. 180, 280; 69, 439
- Cluster population incompleteness bias and the value of H_0 from the Tully-Fischer B_0^0 relation
 - Bottinelli, L., Fouqué, P., Gouguenheim, L., Paturel, G., Teerikorpi, P. 181, 1
- The Perseus supercluster at low galactic latitudes Hauschildt, M. 184, 43

Radio sources: general; see also individual objects

- Radio continuum spectra of compact planetary nebulae: a windshell model
 - Taylor, A.R., Pottasch, S.R., Zhang, C.Y. 171, 178
- Multifrequency observations of low frequency variable sources: a statistical analysis
 - Padrielli, L., Aller, M.F., Aller, H.D., Fanti, C., Fanti, R., Ficarra, A., Gregorini, L., Mantovani, F., Nicolson, G. 173, 215; 67, 63
- Electron-positron jets from gamma-ray beams Lovelace, R.V.E. 173, 237
- VLA observations of B2 quasars, II. Compact sources
- Rogora, A., Padrielli, L., de Ruiter, H.R. 173, 418; 67, 267 Localization of Io and non-Io sources of Jovian decameter emis-
- sion
 Boischot, A., Sastri, J.H., Zarka, P. 175, 287
- Maximum entropy method for polarized images
- Shevgaonkar, R.K. 176, 159
- Designation and nomenclature for astronomical sources of radiation
 - Dickel, H.R., Lortet, M.-C., de Boer, K.S. 176, 190; 68, 75
- Precise optical positions of strong extragalactic radio sources south of $\delta = +5^{\circ}$
 - Torres, C., Wroblewski, H. 178, 322; 69, 23
- Ooty lunar occultation survey of radio sources
 - Singal, A.K. 178, 324; 69, 91
- VLA high resolution observations of weak Leiden-Berkeley Deep-Survey (LBDS) sources
 - Oort, M.J.A., Katgert, P., Steeman, F.W.M., Windhorst, R.A.
- Optical and radio astrometry of four late-type stars with maser emission
 - de Vegt, C., Kleine, T., Johnston, K.J., Bowers, P.F., Spencer, J.H. 179, 322
- Alternating side ejection or precession of jets in radio sources Roos, N., Meurs, E.J.A. 181, 14
- The extended radio emission of PCygni
 - Baars, J.W.M., Wendker, H.J. 181, 210

Further observations of the peculiar galactic radio source BG 2107+49

Higgs, L.A., Vallée, J.P., Albinson, J.S., Batrla, W., Goss, W.M. 181, 351

High resolution radio observations of NGC 4874 Feretti, L., Giovannini, G. 182, 15

The luminosity decay of radio pulsars and some related matters Fokker, A.D. 182, 41

Flux density measurements of faint radio sources at 2.7 and 4.75 $_{
m GHz}$

Forkert, T., Altschuler, D.R. 182, 361; 70, 77

The influence of relativistic electrons on a photoionized gaseous cloud

Gruenwald, R.B., Viegas-Aldrovandi, S.M. 183, 185; 70, 143 The local radio luminosity function of galaxies

Toffolatti, L., Franceschini, A., De Zotti, G., Danese, L. 184,

The correlation between radio and optical variations in OJ 287 Valtaoja, L., Sillanpää, A., Valtaoja, E. 184, 57

Constraints on confinement mechanisms of extragalactic radio sources

Carvalho, J.C. 184, 79

Five years monitoring of extragalactic radio sources. I. Observations at 12, 22 and 37 GHz

Salonen, E., Teräsranta, H., Urpo, S., Tiuri, M., Moiseev, I.G., Nesterov, N.S., Valtaoja, E., Haarla, S., Lehto, H., Valtaoja, L., Teerikorpi, P., Valtonen, M. 185, 356; 70, 409

Flux density and polarization observations of Hipparcos radio stars

Paredes, J.M., Estalella, R., Rius, A. 186, 177

Neutral hydrogen absorption measurements of ten pulsars and the electron density in the galactic plane

Weisberg, J.M., Rankin, J.M., Boriakoff, V. 186, 307

A WSRT 21 cm deep survey of two fields in Hercules Oort, M.J.A., van Langevelde, H.J. 186, 361; 71, 25

0.6 GHz mapping of extended radio galaxies. II. Edge-darkened double sources

Jägers, W.J. 186, 363; 71, 75

77 GHz continuum observations of variable extragalactic sources

Teräsranta, H., Valtaoja, E., Haarala, S., Elo, A.-M., Valtonen, M., Salonen, E., Urpo, S., Tiuri, M., Laurikainen, E. 186, 364; 71, 125

A deep WSRT 21 cm survey down to 0.1 mJy in the Lynx area Oort, M.J.A. 188, 266; 71, 221

Optical identifications and radio morphology of the complete 5 GHz S5 survey

Kühr, H., Johnston, K.J., Odenwald, S., Adlhoch, J. 188, 272; 71, 493

0.6 GHz mapping of extended radio galaxies. III. 3C 66B, NGC 1265, 3C 129, DA 240, 3C 236, 4C 48.29, IC 708 & IC 711, 4CT 51.29.1, 3C 310, Abell 2256, 3C 402 and 3C 465

Jägers, W.J. 188, 275; 71, 603

Radio telescopes

Are solar radio fluctuations real?

Benz, A.O., Fürst, E. 175, 282

The IRAM 30-m millimeter radio telescope on Pico Veleta, Spain

Baars, J.W.M., Hooghoudt, B.G., Mezger, P.G., de Jonge, M.J. 175, 319

Observations of anomalous refraction at radio wavelengths Altenhoff, W.J., Baars, J.W.M., Downes, D., Wink, J.E. 184, 381

Relativity

How far can observable relations determine a Robertson-Walker metric?

Ehlers, J., Rindler, W. 174, 1

Alternating side ejection or precession of jets in radio sources Roos, N., Meurs, E.J.A. 181, 14

Hydromagnetic flows from rapidly rotating compact objects. II. The relativistic axisymmetric jet equilibrium

Camenzind, M. 184, 341

Comments on smoothing cosmologies Hemmerich, A. 185, 1

Satellites: see Planets and satellites

Scintillation

Localization of Io and non-Io sources of Jovian decameter emission

Boischot, A., Sastri, J.H., Zarka, P. 175, 287

A model of the solar wind turbulence from radio occultation experiments

Armand, N.A., Efimov, A.I., Yakovlev, O.I. 183, 135
Day-time seeing statistics at Sacramento Peak Observatory
Brandt, P.N., Mauter, H.A., Smartt, R. 188, 163

Seeing

Automatic log spectrum restoration of atmospheric seeing Navarro, R., Santamaria, J., Gómez, R. 174, 344

Optical long-baseline interferometry and aperture synthesis by speckle masking

Reinheimer, T., Weigelt, G. 176, L17

Photon-counting detectors in time-resolved imaging mode: image recentring and selection algorithms

Nieto, J.-L., Llebaria, A., di Serego Alighieri, S. 178, 301
Day-time seeing statistics at Sacramento Peak Observatory
Brandt, P.N., Mauter, H.A., Smartt, R. 188, 163

Shock waves

CCD observations of jets from young stars Ray, T.P. 171, 145

A numerical study of steady-state shock acceleration Achterberg, A. 174, 329

Acoustic tube waves in the solar atmosphere. I. Magnesium and calcium line emission with complete redistribution

Ulmschneider, P., Muchmore, D., Kalkofen, W. 177, 292

Pulsational long-term behaviour of the cool oxygen-rich Mira variables R Leonis. I. The data

Hoeppe, G.R. 177, 351; 68, 419

Pulsational long-term behaviour of the cool oxygen-rich Mira variable R Leonis. II. Results and discussion

Hoeppe, G.R. 178, 131

Second-order Fermi acceleration and radio spectral index distributions in supernova remnants and bright spiral galaxies Dröge, W., Lerche, I., Schlickeiser, R. 178, 252

An analytical study of shock waves in thin magnetic flux tubes Ferriz-Mas, A., Moreno-Insertis, F. 179, 268

Shape of the visual light curve and detection of a 1.35 cm H₂O line in single M Miras

Vardya, M.S. 182, 75

Detection of interstellar CH and CH⁺ towards SN 1987 A Magain, P., Gillet, D. 184, L5 Stationary shocks in accretion disks

Spruit, H.C. 184, 173

Encounters with comets: discoveries and puzzles in cometary plasma physics

Galeev, A.A. 187, 12

Solar wind flow through the comet P/Halley bow shock

Coates, A.J., Johnstone, A.D., Thomsen, M.F., Formisano, V., Amata, E., Wilken, B., Jockers, K., Winningham, J.D., Borg, H., Bryant, D.A. 187, 55

Plasma properties from the upstream region to the cometopause of comet P/Halley: Vega observations

Verigin, M.I., Gringauz, K.I., Richter, A.K., Gombosi, T.I., Remizov, A.P., Szegö, K., Apáthy, I., Szemerey, I., Tátrallyay, M., Lezhen, L.A. 187, 121

The upstream region, foreshock and bow shock wave at comet P/Halley from plasma electron measurements

Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Rème, H., Sauvaud, J.A., d'Uston, C., Korth, A., Richter, A.K., Mendis, D.A. 187, 290

Unusual characteristics of electromagnetic waves excited by cometary newborn ions with large perpendicular energies

Brinca, A.L., Tsurutani, B.T. 187, 311

Episodic mass loss in late-type stars due to acoustic wave packets

Cuntz, M. 188, L5

Site testing

Day-time seeing statistics at Sacramento Peak Observatory Brandt, P.N., Mauter, H.A., Smartt, R. 188, 163

Solar neighbourhood: see Galaxy (the): solar neighbourhood

Solar system: general

Elliptic orbit of asteroid 1985 CQ1 and theoretical considerations

Debehogne, H. 172, 342

Results of interferometric observations of the F-corona radial velocity field between 3 and 7 solar radii

Shcheglov, P.V., Shestakova, L.I., Ajmanov, A.K. 173, 383

Interpretation of F-corona radial velocity observations Shestakova, L.I. 175, 289

The fate of the Earth in the red giant envelope of the Sun Goldstein, J. 178, 283

Filtering of the local interstellar medium at the heliopause Bleszynski, S. 180, 201

The ortho-para ratio of water vapor in comet P/Halley Mumma, M.J., Weaver, H.A., Larson, H.P. 187, 419

The D/H ratio in water from comet P/Halley

Eberhardt, P., Dolder, U., Schulte, W., Krankowsky, D., Lämmerzahl, P., Hoffman, J.H., Hodges, R.R., Berthelier, J.J., Illiano, J.M. 187, 435

The CO and N₂ abundance in comet P/Halley
Eberhardt, P., Krankowsky, D., Schulte, W., Dolder, U.,
Lämmerzahl, P., Berthelier, J.J., Woweries, J., Stubbemann,
U., Hodges, R.R., Hoffman, J.H., Illiano, J.M. 187, 481

The spectral behavior of P/Halley at large heliocentric distance in light of the Giotto/Vega results

Belton, M.J.S., Spinrad, H., Wehinger, P.A., Wyckoff, S., Yeomans, D.K. 187, 569

Periodicities in the light curve of P/Halley and the rotation of its nucleus

Festou, M.C., Drossart, P., Lecacheux, J., Encrenaz, T., Puel, F., Kohl-Moreira, J.L. 187, 575

Comet P/Halley near-nucleus phenomena in 1986

Larson, S., Sekanina, Z., Levy, D., Tapia, S., Senay, M. 187, 639

Temperature and size of the nucleus of comet P/Halley deduced from IKS infrared Vega-1 measurements

Emerich, C., Lamarre, J.M., Moroz, V.I., Combes, M., Sanko, N.F., Nikolsky, Y.V., Rocard, F., Gispert, R., Coron, N., Bibring, J.P., Encrenaz, T., Crovisier, J. 187, 839

Composition measurements and the history of cometary matter Geiss. J. 187, 859

The dynamical lifetime of comet P/Halley Olsson-Steel, D.I. 187, 909

Solar wind; see Interplanetary medium

Space vehicles

Optical flash background rates

Schaefer, B.E., Pedersen, H., Gouiffes, C., Poulsen, J.M., Pizzichini, G. 174, 338

High-resolution astronomical imaging by roll deconvolution of Space Telescope data

Müller, M., Weigelt, G. 175, 312

Optical long-baseline interferometry and aperture synthesis by speckle masking

Reinheimer, T., Weigelt, G. 176, L17

A model of the solar wind turbulence from radio occultation experiments

Armand, N.A., Efimov, A.I., Yakovlev, O.I. 183, 135

The structure of ULF waves produced by a tethered satellite system

Wright, A.N. 186, 354

Dust observations of comet P/Halley by the plasma-wave analyser

Trotignon, J.G., Béghin, C., Grard, R., Pedersen, A., Formisano, V., Mogilevsky, M., Mikhailov, Y. 187, 83

Spatial distribution of water-group ions near comet P/Halley observed by Suisei

Mukai, T., Miyake, W., Terasawa, T., Kitayama, M., Hirao, K. 187, 129

Dust in comet P/Halley from Vega observations

Mazets, E.P., Sagdeev, R.Z., Aptekar, R.L., Golenetskii, S.V., Guryan, Yu, A., Dyachkov, A.V., Ilyinskii, V.N., Panov, V.N., Petrov, G.G., Savvin, A.V., Sokolov, I.A., Frederiks, D.D., Khavenson, N.G., Shapiro, V.D., Shevchenko, V.I. 187, 699

The dust coma of comet P/Halley: measurements on the Vega-1 and Vega-2 spacecraft

Simpson, J.A., Rabinowitz, D., Tuzzolino, A.J., Ksanfomality, L.V., Sagdeev, R.Z. 187, 742

The spatial distribution of dust jets seen during the Vega-2 flyby Sagdeev, R.Z., Smith, B., Szegö, K., Larson, S., Tóth, I., Merényi, E., Avanesov, G.A., Krasikov, V.A., Shamis, V.A., Tarnapolski, V.I. 187, 835

Spectrophotometry

Extinction and reddening towards compact Galactic H II regions Cox, P., Deharveng, L., Caplan, J. 171, 277

The stellar population in the Wolf-Rayet knot in NGC 5430 Keel, W.C. 172, 43

Stellar granulation. I. The observability of stellar photospheric convection

Dravins, D. 172, 200

Stellar granulation. II. Stellar photospheric line asymmetries Dravins, D. 172, 211 Spectral energy distributions of Be stars. I. Measurements of 26 southern and equatorial stars

Kaiser, D. 173, 416; 67, 203

Comet IRAS-Araki-Alcock (1983 VIII): distribution of the dust and of gaseous species in the vicinity of the nucleus

Festou, M.C., Encrenaz, T., Boisson, C., Pedersen, H., Tarenghi, M. 174, 299

EXO 023432-5232.3: a new 114-minute probable AM-Herculistype binary

Beuermann, K., Thomas, H.C., Giommi, P., Tagliaferri, G. 175, L9

Star formation in nuclei of S0/E galaxies

Rocca-Volmerange, B., Guiderdoni, B. 175, 15

Infrared photometry of SN 1987 A

Bouchet, P., Stanga, R., Le Bertre, T., Epchtein, N., Hamann, W.R., Lorenzetti, D. 177, L9

Optical spectroscopy of SN 1987 A

Danziger, I.J., Fosbury, R.A.E., Alloin, D., Cristiani, S., Dachs, J., Gouiffes, C., Jarvis, B., Sahu, K.C. 177, L13

Early observations of Supernova 1987 A with the International Ultraviolet Explorer (IUE)

Wamsteker, W., Panagia, N., Barylak, M., Cassatella, A., Clavel, J., Gilmozzi, R., Gry, C., Lloyd, C., van Santvoort, J., Talavera, A. 177, L21

Photometric properties of SN 1987 A and other sources in the same field

Panagia, N., Gilmozzi, R., Clavel, J., Barylak, M., Gonzalez Riesta, R., Lloyd, C., Sanz Fernandez de Corboda, L., Wamsteker, W. 177, L25

Spectral evolution of SN 1987 A in the far-ultraviolet

Cassatella, A., Fransson, C., van Santvoort, J., Gry, C., Talavera, A., Wamsteker, W., Panagia, N. 177, L29

Spectrophotometry of eight bright Be stars

Goraya, P.S., Gurm, H.S. 180, 167

Small Magellanic Cloud: Hy-line equivalent widths and luminosity classes of the brightest blue star members

Azzopardi, M. 180, 279; 69, 421

Spectrophotometry fo bright F-, G-, K- and M-type stars. I. Measurements of 60 southern and equatorial stars

Kiehling, R. 180, 280; 69, 465

The 3.3 µm and 3.4 µm emission features in planetary nebulae *Martin, W.* 182, 290

Photometric and spectrophotometric observations of 10 southern planetary nebulae

Louise, R., Macron, A., Pascoli, G., Maurice, E. 183, 186; 70, 201

Extended ionized nebulosities in the galaxies Mk 1, Mk 3, Mk 348 and the quasar $4\,\mathrm{C}$ 37.43

Bergeron, J., Durret, F. 184, 93

The spectro-interferometer of the Arcetri Solar Tower

Cavallini, F., Ceppatelli, G., Righini, A., Meco, M., Paloschi, S., Tantulli, F. 184, 386

Activity of comet P/Halley on March 23-25, 1986: IUE observations

McFadden, L.A., A'Hearn, M.F., Feldman, P.D., Roettger, E.E., Edsall, D.M., Butterworth, P.S. 187, 333

Low-resolution maps of comet P/Halley in principal atomic and molecular species

Kidger, M.R., Acosta, J.A., Garzón, F., Prieto, M., Gómez, R. 187, 363

Rotational structure of the (2,0) Phillips band of C_2 in comet P/ Halley

Appenzeller, I., Münch, G. 187, 465

Spectrophotometry of comet P/Halley. I. Flux, column density and emission gradients within the coma in the emission bands and the continuum

Sivaraman, K.R., Babu, G.S.D., Shylaja, B.S., Rajamohan, R. 187, 543

Observations of comet P/Halley at minimum phase angle Meech, K.J., Jewitt, D.C. 187, 585

Airborne spectrophotometry of P/Halley from 16 to 30 μm Herter, T., Campins, H., Gull, G.E. 187, 629

Temperature and size of the nucleus of comet P/Halley deduced from IKS infrared Vega-1 measurements

Emerich, C., Lamarre, J.M., Moroz, V.I., Combes, M., Sanko, N.F., Nikolsky, Y.V., Rocard, F., Gispert, R., Coron, N., Bibring, J.P., Encrenaz, T., Crovisier, J. 187, 839

Spectroscopy

Spectroscopy of the primary and secondary components of the dwarf nova AH Herculis

Bruch, A. 172, 187

High dispersion spectroscopy of point sources and extended objects with an echelle/CCD spectrograph

McKeith, C.D., Bates, B., Catney, M., Barnett, E., Jorden, P.R., van Breda, I.G. 173, 204

Spectral classification of bright stars in LMC clusters Xiradaki, E., Kontizas, M., Kontizas, E. 173, 215; 67, 25

Further observations of PW Vulpeculae

Andrillat, Y., Houziaux, L. 173, 217; 67, 111

A non-LTE study of the solar emission lines near 12 µm

Lemke, M., Holweger, H. 173, 375

Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii Butler, C.J., Doyle, J.G., Andrews, A.D., Byrne, P.B., Linsky, J.L., Bornmann, P.L., Rodonò, M., Pazzani, V., Simon, T. 174, 139

Influence of stellar evolution on the evolution of planetary nebulae. II. Confrontation of models with observations

Schmidt-Voigt, M., Köppen, J. 174, 223

High-resolution astronomical imaging by roll deconvolution of Space Telescope data

Müller, M., Weigelt, G. 175, 312

Equivalent widths for field halo and disk stars Gratton, R.G., Sneden, C. 176, 193; 68, 193

Short-period variations in i Herculis

Chapellier, E., Le Contel, J.M., Valtier, J.C., Gonzalez-Bedolla, S., Ducatel, D., Morel, P.J., Sareyan, J.P., Geiger, I., Antonelli, P. 176, 255

Determination of the sulphur abundance in metal-deficient dwarf stars

François, P. 176, 294

Infrared photometry of SN 1987 A

Bouchet, P., Stanga, R., Le Bertre, T., Epchtein, N., Hamann, W.R., Lorenzetti, D. 177, L9

Optical spectroscopy of SN 1987 A

Danziger, I.J., Fosbury, R.A.E., Alloin, D., Cristiani, S., Dachs, J., Gouiffes, C., Jarvis, B., Sahu, K.C. 177, L13

The interstellar spectrum toward SN 1987 A

Vidal-Madjar, A., Andreani, P., Cristiani, S., Ferlet, R., Lanz, T., Vladilo, G. 177, L17

Interstellar lines in SN 1987 A observed with the IUE

de Boer, K.S., Grewing, M., Richtler, T., Wamsteker, W., Gry, C., Panagia, N. 177, L37

First results of a spectroscopic search for gravitational mirages Reboul, H., Vanderriest, C., Fringant, A.M., Cayrel, R. 177, 337

Spectral classification of bright stars in LMC clusters. II. Kontizas, E., Kontizas, M., Xiradaki, E. 177, 350; 68, 357
Synthetic spectra of cool, helium-rich white dwarfs with different metal abundances

Zeidler-K.T., E.-M. 177, 351; 68, 469

Spectroscopic and photometric studies of the symbiotic star AG Dra

Iijima, T., Vittone, A., Chochol, D. 178, 203

A search for coronal line emission from early-type stars. I. ζ Puppis

Baade, D., Lucy, L.B. 178, 213

NGC 2242: a newly discovered planetary nebula

Maehara, H., Okamura, S., Noguchi, T., He, X.T., Liu, J.Y., Huang, Y.W., Feng, X.C. 178, 221

Spectral classification of bright stars in remote LMC clusters.

Xiradaki, E., Kontizas, M., Kontizas, E. 178, 326; 69, 211

The wings of the calcium infrared triplet lines in solar-type stars Smith, G., Drake, J.J. 181, 103

Photoprocessing of H_2S in interstellar grain mantles as an explanation for S_2 in comets

Grim, R.J.A., Greenberg, J.M. 181, 155

A model for the excitation of water in comets

Bockelée-Morvan, D. 181, 169

Oscillator strength measurements in the vacuum-ultraviolet. II. The strong 1260, 1277, 1329, 1463, 1561 and 1657 Å multiplets of neutral carbon

Goldbach, C., Nollez, G. 181, 203

An upper limit on p-mode amplitudes in β Hyi

Frandsen, S. 181, 289

The $H\alpha$ velocity structure during the first month of SN 1987 A in the LMC

Hanuschik, R.W., Dachs, J. 182, L29

Spectral types of bright stars in the Small Magellanic Cloud Wing

Kontizas, E., Morgan, D.H., Dapergolas, A., Kontizas, M. 182, 359; 70, 1

Spectral types of bright stars in the north-east arm of the Small Magellanic Cloud

Dapergolas, A., Kontizas, E., Kontizas, M., Morgan, D.H. 182, 359; 70, 15

An objective-prism survey for $H\alpha$ -emission-line stars of a field in Puppis

Pettersson, B. 182, 361; 70, 69

Metals in IRC+10216: detection of NaCl, AlCl and KCl, and tentative detection of AlF

Cernicharo, J., Guélin, M. 183, L10

Optical and near-infrared observations of IRAS galaxies. II Moorwood, A.F.M., Véron-Cetty, M.-P., Glass, I.S. 184, 63 The kinematic structure of the HH 24 complex derived from highresolution spectroscopy

Solf, J. 184, 322

Data reduction and spectrophotometric performances of PUMA 1: an on-line multiaperture spectroscopic system used at the CFHT

Soucail, G., Mellier, Y., Fort, B., Picat, J.P., Cailloux, M. 184, 361

Spectroscopic survey of the Case blue and emission line galaxies Augarde, R., Figon, P., Kunth, D., Sèvre, F. 185, 4 High resolution spectrum of the starburst galaxy Tololo 1924-416 (= ESO 338-IG 04)

Iye, M., Ulrich, M.-H., Peimbert, M. 186, 84

Broad emission line profiles in Seyfert-1 galaxies. I. Evidence for a disk and a wind in Mkn 335

van Groningen, E. 186, 103

The Fe II emission in the UV spectrum of CH Cyg Marsi, C., Selvelli, P.L. 186, 365; 71, 153

Electronic spectroscopy and relaxation of some molecular cations of cometary interest

Leach, S. 187, 195

Pioneer Venus measurements of H, O, and C production in comet P/Halley near perihelion

Stewart, A.I.F. 187, 369

Kinematic properties of the neutral gas outflow from comet P/Halley

Larson, H.P., Mumma, M.J., Weaver, H.A. 187, 391

The ortho-para ratio of water vapor in comet P/Halley Mum, a, M.J., Weaver, H.A., Larson, H.P. 187, 419

Curves of growth of emission lines in cometary spectra. Implications for H₂O and OH bands of comet P/Halley

Krasnopolsky, V.A., Tkachuk, A.Y. 187, 431

Resolution of the [O1]+NH₂ blend in comet P/Halley Arpigny, C., Magain, P., Manfroid, J., Dossin, F., Danks, A.C., Lambert, D.L. 187, 485

Search for methane in comet P/Halley

Drapatz, S., Larson, H.P., Davis, D.S. 187, 497

Detection of parent molecules in comet P/Halley from the IKS-Vega experiment

Moroz, V.I., Combes, M., Bibring, J.P., Coron, N., Crovisier, J., Encrenaz, T., Crifo, J.F., Sanko, N., Grigoryev, A.V., Bockelée-Morvan, D., Gispert, R., Nikolsky, Y.V., Emerich, C., Lamarre, J.M., Rocard, F., Krasnopolsky, V.A., Owen, T. 187, 513

Detection of a new emission band at 2.8 µm in comet P/Halley

Tokunaga, A.T., Nagata, T., Smith, R.G. 187, 519

Spectrophotometry of comet P/Halley at wavelengths 275-710 nm from Vega-2

Moreels, G., Clairemidi, J., Parisot, J.P., Zucconi, J.M., Bertaux, J.L., Blamont, J.E., Hersé, M., Krasnopolsky, V.A., Moroz, V.I., Krysko, A.A., Tkachuk, A.Y., Gogoshev, M., Gogosheva, T., Werner, R., Spasov, S. 187, 551

The spectral behavior of P/Halley at large heliocentric distance in light of the Giotto/Vega results

Belton, M.J.S., Spinrad, H., Wehinger, P.A., Wyckoff, S., Yeomans, D.K. 187, 569

The $3.2\text{--}3.6\,\mu m$ emission features in comet P/Halley: spectral identifications and similarities

Knacke, R.F., Brooke, T.Y., Joyce, R.R. 187, 625

Properties of dust in comet P/Halley measured by the Vega-2 three-channel spectrometer

Krasnopolsky, V.A., Moroz, V.I., Krysko, A.A., Tkachuk, A.Y., Moreels, G., Clairemidi, J., Parisot, J.P., Gogoshev, M., Gogosheva, T. 187, 707

The spectra of meteors from comet P/Halley

Halliday, I. 187, 921

Singly ionized iron as a diagnostic of stellar envelopes. I. The methods

Friedjung, M., Muratorio, G. 188, 100

Distribution of spectral types in the LMC clusters Kontizas, E., Kontizas, M., Xiradaki, E. 188, 274; 71, 575 Spiral structure: see Galaxy (the): kinematics and dynamics of; Galaxy (the): structure of; Galaxies: kinematics and dynamics of; Galaxies: spiral; Galaxies: structure of

Stars: abundances

The origin of the different Wolf-Rayet subtypes Langer, N. 171, L1

Measurement of lithium abundance in dwarf stars of M 67 Spite, F., Spite, M., Peterson, R.C., Chaffee, F.H., Jr. 171,

Empirical colour-metallicity relations for Population II giant

Martinez Roger, C. 171, 77

Lithium abundance in two extreme high-velocity metal-poor halo

Spite, M., Spite, F., Peterson, R.C., Chaffee, F.H., Jr. 172,

The lithium abundance in the extremely metal-deficient dwarf G 64-12

Rebolo, R., Beckman, J., Molaro, P. 172, L17

Magnesium isotopes in super-metal-rich stars

Barbuy, B. 172, 251

Li 1-resonance-doublet observations and the abundance of lithium in Am and δ Del stars

Burkhart, C., Coupry, M.F., Lunel, M., van't Veer, C. 172,

Changes of surface chemistry for standard massive star evolution: Cartography in the HR diagram

Maeder, A. 173, 247

Analysis of the Mg II resonance lines in the spectrum of Sirius Freire Ferrero, R., Gouttebroze, P., Talavera, A. 173, 315

Optical region elemental abundance analyses of B and A stars. VI. The normal stars HR 6559 (A7 IV) and n Leporis (F0 IV) Adelman, S.J. 173, 420; 67, 353

Lithium abundances of southern F, G and K dwarfs and subgi-

Pallavicini, R., Cerruti-Sola, M., Duncan, D.K. 174, 116 White dwarfs with metallic line spectra

Liebert, J., Wehrse, R., Green, R.F. 175, 173

Erratum: Influence of abundances on mass-loss determination for WC stars

van der Hucht, K.A., Cassinelli, J.P., Williams, P.M. 175, 356 An analysis of the manganese star HD 78316 (k Cnc)

Zöchling, J., Muthsam, H. 176, 75

Equivalent widths for giants in metal rich globular clusters. I Gratton, R.G., Quarta, M.L., Ortolani, S. 176, 188; 68, 21

Equivalent widths for field halo and disk stars Gratton, R.G., Sneden, C. 176, 193; 68, 193

The circumstellar shell of IRC + 10216: photo-chemistry of C₂H and CN

Truong-Bach, Nguyen-Q-Rieu, Omont, A., Olofsson, H., Johansson, L.E.B. 176, 285

Determination of the sulphur abundance in metal-deficient dwarf

François, P. 176, 294

The metal abundance of metal-rich globular clusters. IV. Oxygen abundances

Gratton, R.G. 177, 177

Synthetic spectra of cool, helium-rich white dwarfs with different metal abundances

Zeidler-K.T., E.-M. 177, 351; 68, 469

Light element and Ni abundances in field disk and halo stars Gratton, R.G., Sneden, C. 178, 179

Non-LTE abundance analysis of the early-type high galactic latitude star HD 100340

Keenan, F.P., Brown, P.J.F., Conlon, E.S., Dufton, P.L., Lennon, D.J. 178, 194

Magnesium isotopes in metal-poor and metal-rich stars Barbuy, B., Spite, F., Spite, M. 178, 199

Abundances of light elements in halo dwarfs: a re-analysis Magain, P. 179, 176

The metal abundance of metal-rich globular clusters. III. NGC 288, NGC 362, NGC 5897, NGC 6352 and NGC 6362 Gratton, R.G. 179, 181

The wings of the calcium infrared triplet lines in solar-type stars Smith, G., Drake, J.J. 181, 103

An extension to the wavelength coincidence statistics for spectral line identification

Ansari, S.G. 181, 328

Silicon absorption in UV spectra of ApSi stars

Artru, M.-C., Lanz, T. 182, 273

Refined diatomic partition functions. I. Calculational methods and H2 and CO results

Irwin, A.W. 182, 348

Optical region elemental abundance analyses of B and A stars. VII. The metallic-lined star 32 Aquarii

Kocer, D., Bolcal, C., Inelmen, E., Adelman, S.J. 182, 360; 70,

Upper limit to the boron abundance in the Population II star HD 140283

Molaro, P. 183, 241

Physical parameters for Population II stars

Cacciari, C., Malagnini, M.L., Morossi, C., Rossi, I. 183, 314 IUE observations of the broad continuum feature at 1400 Å in the silicon and related stars

Shore, S.N., Brown, D.N. 184, 219

Line-blanketed model atmospheres of Ap-stars. VI. HD 221568 Stepień, K., Muthsam, H. 185, 225

Infrared observations of metal-deficient stars

Arribas, S., Martinez Roger, C. 185, 354; 70, 303

The nature of the F str λ 4077 stars

North, P. 186, 191

The diffusion of gallium in main-sequence peculiar stars Alecian, G., Artru, M.-C. 186, 223

High resolution observations of stars in the peculiar globular cluster ω Cen

Spite, M., Huille, S., François, P., Spite, F. 188, 274; 71, 591

Stars: activity of

The 35 day cycle of Her X-1: quality of the clock mechanism Ögelman, H. 172, 79

Two-dimensional numerical models of the boundary layer of accretion disks in cataclysmic variables

Kley, W., Hensler, G. 172, 124

2S 0918-549: optical identification and study of a new distant low-mass X-ray binary

Chevalier, C., Ilovaisky, S.A. 172, 167

Cyclotron line formation in a hot plasma including Compton cooling

Riffert, H. 172, 241

Temporal variability of the massive X-ray binary 4U 1700-37 Doll, H., Brinkmann, W. 173, 86

Call H emission line cores of late-type dwarfs: variability measurements and velocity field diagnostics

Crivellari, L., Beckman, J.E., Foing, B.H., Vladilo, G. 174, 127

EXO 023432-5232.3: a new 114-minute probable AM-Herculistype binary

Beuermann, K., Thomas, H.C., Giommi, P., Tagliaferri, G. 175, I.9

The viscosity-surface density relation and implications for the early rise of dwarf novae outbursts

Meyer-Hofmeister, E. 175, 113

Radio outbursts in HR 1099: quantitative analysis of flux spectrum and intensity distribution

Klein, K.-L., Chiuderi-Drago, F. 175, 179

Numerical studies of wind accretion

Anzer, U., Börner, G., Monaghan, J.J. 176, 235

X-ray emission from the symbiotic system CH Cygni

Leahy, D.A., Taylor, A.R. 176, 262

An optical study of the Be/X-ray transient HDE 245770/A 0535 \pm 26

Janot-Pacheco, E., Motch, C., Mouchet, M. 177, 91

A rotational modulation effect in the flare frequency on EV Lac *Doyle, J.G.* 177, 201

Rotational modulation and flares on RS CVn and BY Dra stars. VI. Physical parameters of the chromospheres/transition regions of V711 Tau (HR 1099), II-Peg and AR Lac during October 1981

Byrne, P.B., Doyle, J.G., Brown, A., Linsky, J.L., Rodonò, M. 180, 172

Soft X-ray transients in quiescence: observations of Aql X-1 and Cen X-4

van Paradijs, J., Verbunt, F., Shafer, R.A., Arnaud, K.A. 182, 47

Doppler-effect modulation of the observed radiation flux from ultracompact binary stars

Shakura, N.I., Postnov, K.A. 183, L21

Hard spectral components in soft X-ray transients King, A.R., Lasota, J.P. 185, 155

Rotational modulation and flares on RS CVn and BY Dra stars. IV. The spatially resolved chromosphere of AR Lacertae

Walter, F.M., Neff, J.E., Gibson, D.M., Linsky, J.L., Rodonò, M., Gary, D.E., Butler, C.J. 186, 241

Activity in late-type dwarfs. I. Walraven and Johnson photometry of flares and spot variations on Gl 867A (= FK Aqr) in 1979

Byrne, P.B., Black, E., Thé, P.S. 186, 261

Activity in late-type dwarfs. II. Flares and spot variations on Gl 867 A (= FK Aqr) in 1981

Byrne, P.B., Doyle, J.G. 186, 268

Stars: atmospheres of

Improved non-LTE Balmer-line profiles for hot stars Herrero, A. 171, 189

Stellar granulation. I. The observability of stellar photospheric convection

Dravins, D. 172, 200

Stellar granulation. II. Stellar photospheric line asymmetries Dravins, D. 172, 211

IRAS far-infrared colours of normal stars

Waters, L.B.F.M., Coté, J., Aumann, H.H. 172, 225

Stellar radius determination from IRAS 12 µm fluxes Perrin, M.-N., Karoji, H. 172, 235

Far-UV variability of θ Cr B in 1985–86: a progression toward higher velocities

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N. 173, L8

Radiation driven winds of hot luminous stars. II. Wind models for O-stars in the Magellanic Clouds

Kudritzki, R.P., Pauldrach, A., Puls, J. 173, 293

Call H emission line cores of late-type dwarfs: variability measurements and velocity field diagnostics

Crivellari, L., Beckman, J.E., Foing, B.H., Vladilo, G. 174, 127

Computed He II spectra for Wolf-Rayet stars: a grid of models Hamann, W.-R., Schmutz, W. 174, 173

White dwarfs with metallic line spectra

Liebert, J., Wehrse, R., Green, R.F. 175, 173

An analysis of the manganese star HD 78316 (κ Cnc)

Zöchling, J., Muthsam, H. 176, 75

Rotational modulation and flares on RS CVn and BY Dra stars. III. IUE observations of V 711 Tau (= HR 1099), II Peg, and AR Lac

Rodonò, M., Byrne, P.B., Neff, J.E., Linsky, J.L., Simon, T., Butler, C.J., Catalano, S., Cutispoto, G., Doyle, J.G., Andrews, A.D., Gibson, D.M. 176, 267

Gray's constant and "swiss cheese" and "sea serpents" in stellar convection zones

Belvedere, G., Pidatella, R.M., Stix, M. 177, 183

Synthetic spectra of cool, helium-rich white dwarfs with different metal abundances

Zeidler-K.T., E.-M. 177, 351; 68, 469

Thermal diffusion in partially ionized gases: the case of unequal temperatures

Geiss, J., Bürgi, A. 178, 286

Acoustic waves in early-type stars. II. The modified equations and the numerical code

Wolf, B.E. 179, 371

Rotational modulation and flares on RS CVn and BY Dra stars. VI. Physical parameters of the chromospheres/transition regions of V711 Tau (HR 1099), II Peg and AR Lac during October 1981

Byrne, P.B., Doyle, J.G., Brown, A., Linsky, J.L., Rodonò, M. 180, 172

Effects of dust on the formation of lines in an expanding spherical

Peraiah, A., Varghese, B.A., Rao, M.S. 180, 278; 69, 345

NGC 40: IUE observations of the nucleus

Bianchi, L., Grewing, M. 181, 85

The wings of the calcium infrared triplet lines in solar-type stars Smith. G., Drake, J.J. 181, 103

IRAS observations of CP stars

Kroll, R. 181, 315

The missing opacity and the temperature calibration of solar-type stars

Magain, P. 181, 323

Long term variability of the far-UV high velocity components in γ Cas (1978–1986)

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N., Bourdonneau, B. 182, L25

Computed ultraviolet spectra for SN 1987A

Lucy, L.B. 182, L31

Constraints for models of Be stars derived from UV and IRAS observations

Lamers, H.J.G.L.M., Waters, L.B.F.M. 182, 80

Silicon absorption in UV spectra of ApSi stars

Artru, M.-C., Lanz, T. 182, 273

Refined diatomic partition functions. I. Calculational methods and H₂ and CO results

Irwin, A.W. 182, 348

Optical region elemental abundance analyses of B and A stars. VII. The metallic-lined star 32 Aquarii

Kocer, D., Bolcal, C., Inelmen, E., Adelman, S.J. 182, 360; 70, 49

Discovery of a magnetic DA white dwarf with distinct $H\beta$ and $H\alpha$ Zeeman triplets

Hagen, H.-J., Groote, D., Engels, D., Haug, U., Toussaint, F. 183, L7

Radiation driven winds of hot luminous stars. III. Detailed statistical equilibrium calculations for hydrogen to zinc

Pauldrach, A. 183, 295

Line profiles from moving spherical shells Bertout, C., Magnan, C. 183, 319

Radiation-driven winds of hot luminous stars. IV. The influence of multi-line effects

Puls, J. 184, 227

Line-blanketed model atmospheres of Ap-stars. VI. HD 221568 Stepień, K., Muthsam, H. 185, 225

Microturbulence in the upper photosphere of α Persei (F5 Ib) derived from ultraviolet spectral observations

Spaan, F.H.P., de Jager, C., Nieuwenhuijzen, H., Kondo, Y. 185, 229

EUV photometry of DA white dwarfs with EXOSAT Jordan, S., Koester, D., Wulf-Mathies, C., Brunner, H. 185, 253

Model study of wavelength-dependent limb-darkening and radii of M-type giants and supergiants

Scholz, M., Takeda, Y. 186, 200

Improved NLTE profiles of He II lines in hot stars including their overlap with hydrogen

Herrero, A. 186, 231

Rotational modulation and flares on RS CVn and BY Dra stars. IV. The spatially resolved chromosphere of AR Lacertae

Walter, F.M., Neff, J.E., Gibson, D.M., Linsky, J.L., Rodonò, M., Gary, D.E., Butler, C.J. 186, 241

The flare energy spectrum of EV Lac Mavridis, L.N., Avgoloupis, S. 188, 95

Accurate angular diameters and effective temperatures for eleven giants cooler than K0 by Michelson interferometry

Di Benedetto, G.P., Rabbia, Y. 188, 114

Stars: Be

Far-UV variability of θ Cr B in 1985–86: a progression toward higher velocities

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N. 173, L8 High-resolution emission-line spectroscopy of Be stars. II. Fe II and other weak emission lines

Hanuschik, R.W. 173, 299

Spectral energy distributions of Be stars. I. Measurements of 26 southern and equatorial stars

Kaiser, D. 173, 416; 67, 203

IRAS observations of Be stars. I. Statistical study of the IR excess of 101 Be stars

Coté, J., Waters, L.B.F.M. 176, 93

An optical study of the Be/X-ray transient HDE 245770/A0535 + 26

Janot-Pacheco, E., Motch, C., Mouchet, M. 177, 91

The peculiar Be star HD 89249: a spectrum composite with a K star

Stahl, O., Leitherer, C. 177, 105

Shell stars in the Geneva photometric system *Hauck*, *B*. 177, 193

Rapidly rotating stars and the Be star phenomenon Apparao, K.M.V., Antia, H.M., Chitre, S.M. 177, 198

The evolution of intermediate mass Case B close binaries van der Linden, T.J. 178, 170

Temporal polarization variations of Be stars. II. Model fitting of polarimetric data

Clarke, D., McGale, P.A. 178, 294

Interstellar extinction and polarimetric properties of the star HD 200775

Pfau, W., Piirola, V., Reimann, H.-G. 179, 134

Near-infrared photometry of LSI +61°303

D'Amico, N., Lorenzetti, D., Massaro, E., Saraceno, P., Strafella, F. 180, 114

Spectrophotometry of eight bright Be stars Goraya, P.S., Gurm, H.S. 180, 167

The short-period photometric variability of four Be stars Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J. 181, 11; 71, 11

B and A type stars with unexpectedly large colour excesses at IRAS wavelengths

Coté, J. 181, 77

Long term variability of the far-UV high velocity components in γ Cas (1978–1986)

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N., Bourdonneau, B. 182, L25

The optical counterpart of the X-ray transient EXO 2030+375 Motch, C., Janot-Pacheco, E. 182, L55

Constraints for models of Be stars derived from UV and IRAS observations

Lamers, H.J.G.L.M., Waters, L.B.F.M. 182, 80

The relation between the visual polarisation and UV narrow absorption lines in irregular Be star variations

Brown, J.C., Henrichs, H.F. 182, 107

Long-term and mid-term spectroscopic variations of the Be-shell star HD 184279 (V1294 Aql). I. Observational data

Ballereau, D., Chauville, J. 183, 186; 70, 229

An evolutionary scenario for the formation of highly eccentric Be/X-ray binaries

Habets, G.M.H.J. 184, 209

IRAS observations of Be stars. II. Far-IR characteristics and mass loss rates

Waters, L.B.F.M., Coté, J., Lamers, H.J.G.L.M. 185, 206

Spectral features of the B2e star EW Lac before and during the variable shell phase

Hubert, A.M., Floquet, M., Chawille, J., Chambon, M.T. 185, 357; 70, 443

Additional constraints on cool-disk models of Be stars based on long observational sequences in the visual range

Hubert, A.M., Floquet, M., Chambon, M.T. 186, 213

The short-period photometric variability of four Be stars Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J. 186, 361; 71, 11

UBV photoelectric catalogue (1986). II. Analysis of the data Mermilliod, J.-C. 186, 364; 71, 119

Stars: binaries: close

Contact binary models with dissipative heating Matraka, B. 171, 95

Studies of early-type variable stars. IV. The orbit and physical dimensions for V $373\,\mathrm{Cas}$

Hill, G., Fisher W.A. 171, 123

Soft X-ray transients and the evolution of low mass X-ray binaries

Hameury, J.M., King, A.R., Lasota, J.P. 171, 140

The 35 day cycle of Her X-1: quality of the clock mechanism Ögelman, H. 172, 79

Two-dimensional numerical models of the boundary layer of accretion disks in cataclysmic variables

Kley, W., Hensler, G. 172, 124

Four-colour photometry of eclipsing binaries.

XXVI A. RY Aqr: a low-mass semidetached system with intrinsic variability

Helt, B.E. 172, 155

2S0918-549: optical identification and study of a new distant low-mass X-ray binary

Chevalier, C., Ilovaisky, S.A. 172, 167

Photoelectric study of HD96008: a close binary system or a new pulsating star?

Lampens, P. 172, 173

Contact binaries. III. A survey of the equilibrium solutions and their stability

Kähler, H., Matraka, B., Weigert, A. 172, 179

Disappearance of periodic X-ray minima in AM Her Priedhorsky, W., Marshall, F.J., Hearn, D.R. 173, 95

Photoelectric radial velocities of eclipsing binaries. III. Orbital elements of AN Cam (Text in French)

Imbert, M. 173, 218; 67, 161

New photoelectric light curves and elements of SW Lacertae Niarchos, P.G. 173, 420; 67, 365

EXO 023432-5232.3: a new 114-minute probable AM-Herculistyne binary

Beuermann, K., Thomas, H.C., Giommi, P., Tagliaferri, G. 175, L9

Forced oscillations in a rotating star: low frequency gravity modes

Rocca, A. 175, 81

The sources of gravitational waves with continuous and discrete spectra

Lipunov, V.M., Postnov, K.A., Prokhorov, M.E. 176, L1

A compilation of distances to cataclysmic variable stars Berriman, G. 176, 189; 68, 41

Four-colour photometry of eclipsing binaries. XXV. Light curves of V 451 Ophiuchi

Clausen, J.V., Giménez, A., García, J.M., Rolland, A. 176, 192; 68, 141

Four-colour photometry of eclipsing binaries. XXVI B. Light curves of RY Aqr

Helt, B.E. 176, 193; 68, 187

Four-colour photometry of eclipsing binaries. XXVIIa. Light curves of AO Velorum

Grønbech, B. 176, 195; 68, 317

Four-colour photometry of eclipsing binaries. XXVIII. Light curves of BW Aquarii

Grønbech, B., Andersen, J., Clausen, J.V., Helt, B.E., Jensen, K.S. 176, 195; 68, 323

Four-colour photometry of eclipsing binaries. XXIX. Light curves of TZ Mensae

Grønbech, B., Andersen, J., Clausen, J.V., Nordström, B., Reipurth, B. 176, 196; 68, 331

RS Indi: UBV light curves and period study

Cerruti, M.A., Marton, S., Grieco, A., Lapasset, E., Sistero, R.F., Claria, J.J. 177, 350; 68, 351

Infrared photometry of the RS CVn binaries. V. The southern sytems HD 5303 and AD Cap

Antonopoulou, E. 177, 352; 68, 521

The evolution of intermediate mass Case B close binaries van der Linden, T.J. 178, 170

Photometry and elements of the pre-contact system FO Vir Poretti, E., Niarchos, P.G., Mantegazza, L., Antonello, E., Conconi, P. 178, 328; 69, 335

CCD photometry of AC 211/X 2127+119: The 8.5 h period of the X-ray binary in the M 15 globular cluster

Ilovaisky, S.A., Aurière, M., Chevalier, C., Koch-Miramond, L., Cordoni, J.P., Angebault, L.P. 179, L1

The nucleus of LT-5: an unusual triple system?

Jasniewicz, G., Duquennoy, A., Acker, A. 180, 145

Photoelectric radial velocities of eclipsing binaries. IV. Orbital elements of BW Aqr (Text in French)

Imbert, M. 180, 278; 69, 397

Simultaneous multicolour photometry of OY Carinae during quiescence

Schoembs, R., Dreier, H., Barwig, H. 181, 50

Soft X-ray transients in quiescence: observations of Aql X-1 and Cen X-4

van Paradijs, J., Verbunt, F., Shafer, R.A., Arnaud, K.A. 182, 47

The BVJK light curves of the short-period eclipsing binary CG Cygni

Bedford, D.K., Fuensalida, J.J., Arévalo, M.J. 182, 264

The double system HD 135421

Rovithis, P., Rovithis-Livaniou, H. 182, 360; 70, 63

The magnetic field strength in the emission line region of the AM Her system EF Eridani (=2A0311-277)

Seifert, W., Östreicher, R., Wunner, G., Ruder, H. 183, L1

Up-to-date parameters of the eclipsing triple system IU Aur Mayer, P., Drechsel, H. 183, 61

A search for non-stellar contributions to the optical and near-IR flux of RS CVn binaries. I. The cases of TY Pyx, UV Psc, RU Cnc and VV Mon

Busso, M., Scaltriti, F., Persi, P., Robberto, M., Silvestro, G. 183, 83

FS Lupi: a contact binary in poor thermal contact Milano, L., Russo, G., Terzan, A. 183, 265

Evolution of stellar binaries formed by tidal capture Ray, A., Kembhavi, A.K., Antia, H.M. 184, 164

An evolutionary scenario for the formation of highly eccentric Be/X-ray binaries

Habets, G.M.H.J. 184, 209

Light-curve analysis of the W Serpentis objects W Crusis and RX Cassiopeiae

Strupat, W. 185, 150

Catalogue of cataclysmic binaries, low-mass X-ray binaries and related objects (fourth edition)

Ritter, H. 185, 355; 70, 335

An atlas and catalogue of northern dwarf novae

Bruch, A., Fischer, F.-J., Wilmsen, U. 185, 357; 70, 481

Photoelectric radial velocities of eclipsing binaries. V. Orbital elements of V 643 Ori

Imbert, M. 186, 363; 71, 69

Ultraviolet observations of cataclysmic variables: the IUE archive

Verbunt, F. 188, 268; 71, 339

Stars: binaries: general

The frequency of triple and multiple stellar systems Mayor, M., Mazeh, T. 171, 157

Micrometric measurements of triple systems north of $+70^{\circ}$ declination (Text in German)

Schmeidler, F. 173, 419; 67, 303

Self-energy losses in the binary pulsar PSR 1913+16 Spyrou, N. 174, 355

Multiple close frequencies of the Delta Scuti star θ² Tau Breger, M., Huang Lin, Jiang Shi-yang, Guo Zi-he, Antonello, E., Mantegazza, L. 175, 117

Erratum: Absolute dimensions of eclipsing binaries. III. KW Hydrae: a detached Am system with unequal components

Andersen, J., Vaz, L.P.R. 175, 355

Evolution of the periodicity of the W UMa system & CrA Manfroid, J., Heck, A., Lunel, M., Bergeat, J. 176, 180

A compilation of distances to cataclysmic variable stars Berriman, G. 176, 189; 68, 41

Numerical studies of wind accretion

Anzer, U., Börner, G., Monaghan, J.J. 176, 235

First results of a spectroscopic search for gravitational mirages Reboul, H., Vanderriest, C., Fringant, A.M., Cayrel, R. 177, 337

IRAS observations of RSCVn systems

Verma, R.P., Iyengar, K.V.K., Rengarajan, T.N. 177, 346

The fate of the Earth in the red giant envelope of the Sun Goldstein, J. 178, 283

Four-colour photometry of the early-type eclipsing binary AL Scl

Haefner, R. 178, 327; 69, 295

Absolute parameters of the early-type double-lined eclipsing binary AL Sculptoris (HD 224113)

Haefner, R., Skillen, I., de Groot, M. 179, 141

Distribution of mass ratios in spectroscopic binaries Halbwachs, J.L. 183, 234

Photometry and spectroscopy of the eclipsing P Cygni star R 81 in the Large Magellanic Cloud

Stahl, O., Wolf, B., Zickgraf, F.-J. 184, 193

CCD photometry of V 926 Sco, the optical counterpart of the X-ray burst source 4U/MXB 1735-44

van Amerongen, S., Pedersen, H., van Paradijs, J. 185, 147 The period of BW Vulpeculae

van der Linden, D., Sterken, C. 186, 129

Speckle interferometric measurements of binary stars. IV Blazit, A., Bonneau, D., Foy, R. 186, 362; 71, 57

The influence of external magnetic fields on the structure of thin accretion disks

Anzer, U., Börner, G., Meyer-Hofmeister, E. 188, 85

Fast transient X-rays from flare stars and RS CVn binaries Rao, A.R., Vahia, M.N. 188, 109

A $wby\beta$ survey of northern-hemisphere active binaries. I. The observations

Reglero, V., Giménez, A., de Castro, E., Fernandez-Figueroa, M.J. 188, 270; 71, 421

BV photometry of β Lyrae'in 1979 and 1981

Aslan, Z., Derman, E., Engin, S., Yilmaz, N. 188, 274; 71, 597

Stars: binaries: spectroscopic

The frequency of triple and multiple stellar systems Mayor, M., Mazeh, T. 171, 157

Measurements and study of rotational velocities in RS CVn star systems

Huisong, T., Xuefu, L. 172, 74

Measurements and study of rotational velocities in RS CVn star systems

Huisong, T., Xuefu, L. 172, 74

Photoelectric radial velocities of eclipsing binaries. III. Orbital elements of AN Cam (Text in French)

Imbert, M. 173, 218; 67, 161

Absolute dimensions of eclipsing binaries. X. V 1143 Cygni Andersen, J., Garcia, J.M., Giménez, A., Nordström, B. 174, 107

Absolute dimensions of eclipsing binaries. XII. TZ Mensae Andersen, J., Clausen, J.V., Nordström, B. 175, 60

Contribution to the study of F, G, K, M binaries. IV. Orbital elements of the spectroscopic binary HD 23838 (Text in French) *Pédoussaut*, A., Carquillat, J.M., Ginestet, N. 175, 136

The peculiar Be star HD 89249: a spectrum composite with a K star

Stahl, O., Leitherer, C. 177, 105

The light curve of BW Vulpeculae

Sterken, C., Young, A., Furenlid, I. 177, 150

A study of multiple stellar systems with CORAVEL (I) Duquennoy, A. 178, 114

Absolute parameters of the early-type double-lined eclipsing binary AL Sculptoris (HD 224113)

Haefner, R., Skillen, I., de Groot, M. 179, 141

Photoelectric radial velocities of eclipsing binaries. IV. Orbital elements of BW Aqr (Text in French)

Imbert, M. 180, 278; 69, 397

Distribution of mass ratios in spectroscopic binaries Halbwachs, J.L. 183, 234

A study of the massive O-type binary Iota Orionis Stickland, D.J., Pike, C.D., Lloyd, C., Howarth, I.D. 184, 185

Photometry and spectroscopy of the O-type variable HD 167971 Leitherer, C., Forbes, D., Gilmore, A.C., Hearnshaw, J., Klare, G., Krautter, J., Mandel, H., Stahl, O., Strupat, W., Wolf, B., Zickgraf, F.-J., Zirbel, E. 185, 121

Membership of Cepheids and red giants in 8 open clusters: NGC 129, 6067, 6087, 6649, 6664, IC 4725, Ly 5, Ru 79
Mermilliod, J.C., Mayor, M., Burki, G. 185, 356; 70, 389

Rotational modulation and flares on RS CVn and BY Dra stars.

IV. The spatially resolved chromosphere of AR Lacertae

Walter, F.M., Neff, J.E., Gibson, D.M., Linsky, J.L., Rodonò, M., Gary, D.E., Butler, C.J. 186, 241

Speckle interferometric measurements of binary stars. IV Blazit, A., Bonneau, D., Foy, R. 186, 362; 71, 57

Photoelectric radial velocities of eclipsing binaries. V. Orbital elements of V 643 Ori

Imbert, M. 186, 363; 71, 69

Orbital elements for double stars of Population II. The high-velocity system COD-48 $^{\circ}$ 1741

Lindgren, H., Ardeberg, A., Zuiderwijk, E. 188, 39

Stars: binaries: symbiotic

Spectroscopic and photometric studies of the symbiotic star AG Dra

Iijima, T., Vittone, A., Chochol, D. 178, 203

Optical confirmation and high-resolution spectroscopy of the radio jet from the symbiotic star CH Cygni Solf, J. 180, 207

Polarization and infrared colors of symbiotic stars Schulte-Ladbeck, R.E., Magalhães, A.M. 181, 213

A new approach to symbiotic stars Nussbaumer, H., Vogel, M. 182, 51 Winds in collision. III. Modeling the interaction nebulae of eruptive symbiotics

Girard, T., Willson, L.A. 183, 247

The Fe II emission in the UV spectrum of CH Cyg Marsi, C., Selvelli, P.L. 186, 365; 71, 153

Stars: binaries: visual

New double stars (20th series) discovered at Nice (Text in French)

Couteau. P. 173, 214: 67, 13

A photometric study of DM Delphini

Güdür, N., Sezer, C., Gülmen, Ö. 173, 216; 67, 87

Photographic observations of visual double stars (magnetic

van Albada-van Dien, E., Panjaitan, E. 176, 191; 68, 117 Search for systematic effects in photographic measurements of visual binaries

Morbidelli, R., Pannunzio, R. 177, 351; 68, 481

A study of multiple stellar systems with CORAVEL (I) Duquennoy, A. 178, 114

Measurements of visual double stars made at Pic du Midi and at

Couteau, P. 183, 186; 70, 193

A study of UV spectra of ζ Aur/VV Cep stars. X. Mass-loss of α Sco A from high-resolution IUE spectra of α Sco B

Hagen, H.-J., Hempe, K., Reimers, D. 184, 256

Speckle interferometric measurements of binary stars. IV Blazit, A., Bonneau, D., Foy, R. 186, 362; 71, 57

Micrometer measurements of visual double stars obtained at the Nice and Pic du Midi Observatories

Ling. J.F. 186, 364; 71, 115

Orbital elements of 26 double stars

Baize, P. 186, 365; 71, 177

Orbits of six binary stars

Couteau, P. 188, 273; 71, 569

Stars: blue stragglers

Evidences for a bifurcation in massive star evolution. The ONblue stragglers

Maeder, A. 178, 159

Properties of blue stragglers in young OB associations Mathys, G. 188, 265; 71, 201

Stars: carbon

A new strong maser: HCN

Guilloteau, S., Omont, A., Lucas, R. 176, L24

Red stars in the Fornax dwarf galaxy

Westerlund, B.E., Edvardsson, B., Lundgren, K. 178, 41

New CO and HCN sources associated with IRAS carbon stars Nguyen-Q-Rieu, Epchtein, N., Truong-Bach, Cohen, M. 180,

Photochemistry and molecular ions in carbon-rich circumstellar envelopes

Glassgold, A.E., Mamon, G.A., Omont, A., Lucas, R. 180, 183 CO (J=1-0) observations of bright carbon stars Olofsson, H., Eriksson, K., Gustafsson, B. 183, L13

Stars: cataclysmic variables; see Stars: novae

Stars: Cepheids

The Fourier coefficients derived from the decomposition of pulsating star light curves

Antonello, E., Broglia, P., Conconi, P., Mantegazza, L. 171,

Determination of the radii of Cepheids. IV. Dimensions of HV 879, HV 899, HV 909, HV 2257, HV 2338, HV 2827 and the distance of the Large Magellanic Cloud (Text in French) Imbert, M. 175, 30

Studies of Cepheid-type variability. V. The Fourier phases of Type II Cepheids with periods of 1-3 days

Petersen, J.O., Andreasen, G.K. 176, 183

Cepheids in the Magellanic Clouds. I. Fourier decomposition of LMC Cepheid light curves

Andreasen, G.K., Petersen, J.O. 180, 129

Hydrodynamic models for the short-period, classical Cepheid,

Aikawa, T., Antonello, E., Simon, N.R. 181, 25

The pulsation modes of CO Aur Babel, J., Burki, G. 181, 34

Membership of Cepheids and red giants in 8 open clusters: NGC 129, 6067, 6087, 6649, 6664, IC 4725, Ly 5, Ru 79

Mermilliod, J.C., Mayor, M., Burki, G. 185, 356; 70, 389

Cepheids in the Magellanic Clouds. II. Search for double mode Cepheids in the LMC

Andreasen, G.K. 186, 159

Stars: chromospheres of

Magnetic structure in cool stars. XI. Relations between radiative fluxes measuring stellar activity, and evidence for two components in stellar chromospheres

Schrijver, C.J. 172, 111

The classification of the shapes of stellar chromospheric emission

Gurzadyan, G.A. 173, 284

Analysis of the Mg II resonance lines in the spectrum of Sirius Freire Ferrero, R., Gouttebroze, P., Talavera, A. 173, 315

Ca II H emission line cores of late-type dwarfs: variability measurements and velocity field diagnostics

Crivellari, L., Beckman, J.E., Foing, B.H., Vladilo, G. 174,

Line formation in the winds of Herbig Ae/Be stars. The H α line Catala, C., Kunasz, P.B. 174, 158

Solar-type giants: new X-ray detections from EXOSAT observa-

Gondoin, P., Mangeney, A., Praderie, F. 174, 187

Rotational modulation and flares on RS CVn and BY Dra stars. III. IUE observations of V 711 Tau (= HR 1099), II Peg, and AR

Rodonò, M., Byrne, P.B., Neff, J.E., Linsky, J.L., Simon, T., Butler, C.J., Catalano, S., Cutispoto, G., Doyle, J.G., Andrews, A.D., Gibson, D.M. 176, 267

Magnetic structure in cool stars. XII. Chromospheric activity and rotation of giants and dwarfs

Rutten, R.G.M. 177, 131

Magnetic structure in cool stars. XIV. Deficiency in chromospheric fluxes from M-type dwarfs

Schrijver, C.J., Rutten, R.G.M. 177, 143

Magnetic structure in cool stars. XIII. Appropriate units for the rotation-activity relation

Rutten, R.G.M., Schrijver, C.J. 177, 155

Acoustic tube waves in the solar atmosphere. I. Magnesium and calcium line emission with complete redistribution

Ulmschneider, P., Muchmore, D., Kalkofen, W. 177, 292

Rotational modulation and flares on RS CVn and BY Dra stars. VI. Physical parameters of the chromospheres/transition regions of V711 Tau (HR 1099), II Peg and AR Lac during October 1981

Byrne, P.B., Doyle, J.G., Brown, A., Linsky, J.L., Rodonò, M. 180, 172

Rotational modulation of the wind of the PMS star AB Aur: new observations in CIV and MgII

Catala, C., Praderie, F., Felenbok, P. 182, 115

The rapidly oscillating Ap stars as a test of stellar chromospheric heating mechanisms

Shore, S.N., Brown, D.N., Sonneborn, G., Gibson, D.M. 182,

Chromospheric Mg II h and k emissions free of interstellar contamination: velocity structure in late-type dwarfs and giants

Vladilo, G., Molaro, P., Crivellari, L., Foing, B.H., Beckman, J.E., Genova, R. 185, 233

Rotational modulation and flares on RS CVn and BY Dra stars. IV. The spatially resolved chromosphere of AR Lacertae

Walter, F.M., Neff, J.E., Gibson, D.M., Linsky, J.L., Rodonò, M., Gary, D.E., Butler, C.J. 186, 241

Episodic mass loss in late-type stars due to acoustic wave packets

Cuntz, M. 188, L5

The flare energy spectrum of EV Lac Mavridis, L.N., Avgoloupis, S. 188, 95

Stars: circumstellar matter

Optical and infrared observations of two oxygen-rich unidentified IRAS sources

Le Bertre, T., Epchtein, N. 171, 116

Radio continuum spectra of compact planetary nebulae: a windshell model

Taylor, A.R. Pottasch, S.R., Zhang, C.Y. 171, 178

Dust formation in stellar winds. III. Self-consistent models for dust-driven winds around C-stars

Gail, H.P., Sedlmayr, E. 171, 197

First detection of SiO emission from circumstellar shells at the galactic centre

Lindqvist, M., Winnberg, A., Ukita, N., Johansson, L.E.B. 172,

Very cold IRAS objects and pre-planetary nebulae: CO observations

Likkel, L., Omont, A., Morris, M., Forveille, T. 173, L11 The Beta Pictoris circumstellar disk. IV. Redshifted UV lines

Lagrange, A.M., Ferlet, R., Vidal-Madjar, A. 173, 289

High-resolution emission-line spectroscopy of Be stars. II. Fe II and other weak emission lines

Hanuschik, R.W. 173, 299

Interferometric observations of the H₂O and OH maser emission from S Persei

Diamond, P.J., Johnston, K.J., Chapman, J.M., Lane, A.P., Bowers, P.F., Spencer, J.H., Booth, R.S. 174, 95

The detection of a circumstellar shell around P Cygni by direct CCD imaging

Leitherer, C., Zickgraf, F.-J. 174, 103

Detection of a heavy radical in IRC+10216: The hexatriynyl radical C₆H?

Guélin, M., Cernicharo, J., Kahane, C., Gomez-Gonzalez, J., Walmsley, C.M. 175, L5

SiO maser emission in evolved stars: relation to IR continuum Bujarrabal, V., Planesas, P., del Romero, A. 175, 164

The O6.5f?p star HD 148937 and its interstellar environment Leitherer, C., Chavarria-K., C. 175, 208

IRAS 09371+1212: an icy evolved, mass-losing star with a unique IR spectrum

Forveille, T., Morris, M., Omont, A., Likkel, L. 176, L13 A new strong maser: HCN

Guilloteau, S., Omont, A., Lucas, R. 176, L24

IRAS observations of Be stars. I. Statistical study of the IR excess of 101 Be stars

Coté. J., Waters. L.B.F.M. 176, 93

The opacity of the dust around the carbon star IRC+10216 Le Bertre, T. 176, 107

The circumstellar shell of IRC + 10216: photo-chemistry of C₂H and CN

Truong-Bach, Nguyen-Q-Rieu, Omont, A., Olofsson, H., Johansson, L.E.B. 176, 285

Dust formation in stellar winds. V. The minimum mass loss rate for dust-driven winds

Gail. H.-P., Sedlmayr, E. 177, 186

Shell stars in the Geneva photometric system Hauck, B. 177, 193

IRAS observations of RSCVn systems

Verma, R.P., Iyengar, K.V.K., Rengarajan, T.N. 177, 346 The nature of the exciting star of RCW 34

Vittone, A.A., de Martino, D., Giovannelli, F., Rossi, C. 179,

New CO and HCN sources associated with IRAS carbon stars Nguyen-Q-Rieu, Epchtein, N., Truong-Bach, Cohen, M. 180,

Photochemistry and molecular ions in carbon-rich circumstellar envelopes

Glassgold, A.E., Mamon, G.A., Omont, A., Lucas, R. 180, 183 C₆H: astronomical study of its fine and hyperfine structure Cernicharo, J., Guélin, M., Menten, K.M., Walmsley, C.M. 181, L1

HD 213985: a hot post-AGB star in the galactic halo Waelkens, C., Waters, L.B.F.M., Cassatella, A., Le Bertre, T., Lamers, H.J.G.L.M. 181, L5

Sulfur in IRC+10216

Cernicharo, J., Guélin, M., Hein, H., Kahane, C. 181, L9 Polarization investigations in four peculiar supergiants with high IR excess

Joshi, U.C., Deshpande, M.R., Sen, A.K., Kulshrestha, A. 181, 31

Transfer of resonant line photons in spherically accelerating enve-

Beckwith, S., Natta, A. 181, 57

B and A type stars with unexpectedly large colour excesses at IRAS wavelengths Coté, J. 181, 77

The extended radio emission of PCygni Baars, J.W.M., Wendker, H.J. 181, 210

Polarization and infrared colors of symbiotic stars

Schulte-Ladbeck, R.E., Magalhães, A.M. 181, 213

The peculiar emission-line supergiant HD 37836 Stahl, O., Wolf, B. 181, 293

IRAS observations of CP stars

Kroll, R. 181, 315

Dust emission and star formation in compact HII regions Chini, R., Krügel, E., Wargau, W. 181, 378

Have circumstellar envelopes been detected around nearby Mdwarfs?

Mariotti, J.-M., Perrier, C., Lacombe, F. 182, L11

Vibrationally excited CS in IRC+10216 Turner, B.E. 182, L15

The $H\alpha$ velocity structure during the first month of SN 1987 A in the LMC

Hanuschik, R.W., Dachs, J. 182, L29

New doublets in IRC+10216: Vibrationally excited C₄H? Guélin, M., Cernicharo, J., Navarro, S., Woodward, D.R., Gottlieb, C.A., Thaddeus, P. 182, L37

Z CMa resolved at near infrared wavelengths: one more piece to the puzzle

Leinert, Ch., Haas, M. 182, L47

Shape of the visual light curve and detection of a $1.35~{\rm cm}~{\rm H}_2{\rm O}$ line in single M Miras

Vardya, M.S. 182, 75

Constraints for models of Be stars derived from UV and IRAS observations

Lamers, H.J.G.L.M., Waters, L.B.F.M. 182, 80

Infrared photometry of late-type Wolf-Rayet stars

Williams, P.M., van der Hucht, K.A., Thé, P.S. 182, 91

Observations of cold dust in S 106

Mezger, P.G., Chini, R., Kreysa, E., Wink, J. 182, 127

Direct imagery of circumstellar shells around Ofpe/WN9 stars in the galaxy and in the LMC

Stahl, O. 182, 229

Metals in IRC+10216: detection of NaCl, AlCl and KCl, and tentative detection of AlF

Cernicharo, J., Guélin, M. 183, L10

CO (J=1-0) observations of bright carbon stars Olofsson, H., Eriksson, K., Gustafsson, B. 183, L13

Detection of vibrationally excited SiS in IRC+10216 Turner, B.E. 183, L23

A study of the silicate emission features of the IRAS low resolution spectra

Gal, O., de Muizon, M., Papoular, R., Pégourié, B. 183, 29 A search for non-stellar contributions to the optical and near-IR

A search for non-stellar contributions to the optical and near-IR flux of RS CVn binaries. I. The cases of TY, Pyx, UV Psc, RU Cnc and VV Mon

Busso, M., Scaltriti, F., Persi, P., Robberto, M., Silvestro, G. 183, 83

Chemical modelling of molecular sources. V. IRC + 10216 Nejad, L.A.M., Millar, T.J. 183, 279

A study of UV spectra of ζ Aur/VV Cep stars. X. Mass-loss of α Sco A from high-resolution IUE spectra of α Sco B

Hagen, H.-J., Hempe, K., Reimers, D. 184, 256

IRAS observations of Be stars. II. Far-IR characteristics and mass loss rates

Waters, L.B.F.M., Coté, J., Lamers, H.J.G.L.M. 185, 206

The Beta Pictoris circumstellar disk. V. Time variations of the Ca II-K line

Ferlet, R., Hobbs, L.M., Vidal-Madjar, A. 185, 267

Spectral features of the B2e star EW Lac before and during the variable shell phase

Hubert, A.M., Floquet, M., Chauville, J., Chambon, M.T. 185, 357; 70, 443

Dust shells around Miras and OH/IR stars: interpretation of IRAS and other infrared measurements

Bedjin, P.J. 186, 136

Additional constraints on cool-disk models of Be stars based on long observational sequences in the visual range

Hubert, A.M., Floquet, M., Chambon, M.T. 186, 213

An analysis of the emission features of the IRAS low-resolution spectra of carbon stars

Baron, Y., de Muizon, M., Papoular, R., Pégourié, B. 186, 271

Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 186, 362; 71, 39

A model for the intrinsic linear polarization of cool giant and supergiant stars

Marcondes-Machado, J.A. 188, 131

Erratum: Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 188, 269; 71, 411

Stars: classification

Studies of early-type variable stars. IV. The orbit and physical dimensions for V 373 Cas

Hill, G., Fisher W.A. 171, 123

Eight-colour photometry of stars associated with selected Sharpless H II regions at I^{II} ≈ 190°: S 252, S 254, S 255, S 257, and S 261 Chavarria-K, C., de Lara, E., Hasse, I. 171, 216

The classification of the shapes of stellar chromospheric emission lines

Gurzadyan, G.A. 173, 284

A new determination of the statistical relations between stellar spectral and luminosity classes and stellar effective temperature and luminosity

de Jager, C., Nieuwenhuijzen, H. 177, 217

Small Magellanic Cloud: $H\gamma$ -line equivalent widths and luminosity classes of the brightest blue star members

Azzopardi, M. 180, 279; 69, 421

Spectral types of bright stars in the Small Magellanic Cloud Wing

Kontizas, E., Morgan, D.H., Dapergolas, A., Kontizas, M. 182, 359; 70, 1

Spectral types of bright stars in the north-east arm of the Small Magellanic Cloud

Dapergolas, A., Kontizas, E., Kontizas, M., Morgan, D.H. 182, 359; 70, 15

A comparison between two-dimensional classifications from Vilnius photometry and those on the MK system

Corbally, C.J., Boyle, R.P. 186, 114

The nature of the F str λ 4077 stars

North, P. 186, 191

Radial velocities. II. Ground-based measurements for Hipparcos

Fehrenbach, C., Duflot, M., Burnage, R., Mannone, C., Peton, A., Genty, V. 188, 267; 71, 275

Stars: collapsed

Phase transitions in stellar cores. II. Equilibrium configurations in general relativity

Zdunik, J.L., Haensel, P., Schaeffer, R. 172, 95

Self-energy losses in the binary pulsar PSR 1913+16 Spyrou, N. 174, 355

Mean free paths of non-degenerate neutrinos in neutron star matter

Haensel, P., Jerzak, A.J. 179, 127

The harmonic structure of the February 23.316 neutrino burst from the Supernova 1987 A

Ögelman, H., Buccheri, R. 180, L23

The disruption of a light neutron star in an ultraclose binary and the second neutrino burst from SN 1987 A

Stella, L., Treves, A. 185, L5

The modulation of neutrinos from SN 1987 A during stellar col-

de Jager, O.C. 185, L13

Stars: colors of

Empirical colour-metallicity relations for Population II giant stars

Martinez Roger, C. 171, 77

IRAS far-infrared colours of normal stars

Waters, L.B.F.M., Coté, J., Aumann, H.H. 172, 225

A photoelectric UBV sequence in SA 184

Ardeberg, A., Lindgren, H. 173, 216; 67, 103

UBV photometry of stars whose positions are accurately known. IV

Oia, T. 176, 193; 68, 211

 $\it Erratum$: The "Bright Stars" with $\it UBV$ -colors close to those of the Sun

Neckel, H. 176, 372

IRAS observations of RSCVn systems

Verma, R.P., Iyengar, K.V.K., Rengarajan, T.N. 177, 346

The missing opacity and the temperature calibration of solar-type stars

Magain, P. 181, 323

The strange "spots" on the T Tauri star RY Lupi

Liseau, R., Lindroos, K.P., Fischerström, C. 183, 274

Infrared observations of metal-deficient stars

Arribas, S., Martinez Roger, C 185, 354; 70, 303

UBVRI photometry of FKSZ stars. I

Carrasco, G., Loyola. P. 185, 355; 70, 369

The nature of the F str \(\lambda \) 4077 stars

North, P. 186, 191

A $uvby\beta$ survey of northern-hemisphere active binaries. I. The observations

Reglero, V., Giménez, A., de Castro, E., Fernandez-Figueroa, M.J. 188, 270; 71, 421

UBV photometry of stars whose positions are accurately known. V

Oja, T. 188, 273; 71, 561

Stars: coronae of

Magnetic structure in cool stars. XI. Relations between radiative fluxes measuring stellar activity, and evidence for two components in stellar chromospheres

Schrijver, C.J. 172, 111

Solar-type giants: new X-ray detections from EXOSAT observa-

Gondoin, P., Mangeney, A., Praderie, F. 174, 187

Magnetic structure in cool stars. XIV. Deficiency in chromospheric fluxes from M-type dwarfs

Schrijver, C.J., Rutten, R.G.M. 177, 143

The light curves of low-mass X-ray binaries

Frank, J., King, A.R., Lasota, J.-P. 178, 137

A search for coronal line emission from early-type stars. I. ζ Puppis

Baade, D., Lucy, L.B. 178, 213

A comparison of coronal X-ray emission observed with the Einstein and EXOSAT observatories

Schmitt, J.H.M.M., Pallavicini, R., Monsignori-Fossi, B.C., Harnden, F.R., Jr. 179, 193

The thermal stability of coronal loops by nonlinear diffusion asymptotics

Pakkert, J.W., Martens, P.C.H., Verhulst, F. 179, 285

Models for stellar coronae: thin coronae with radiative forces Hearn, A.G. 185, 247

Stars: diameters of

Four-colour photometry of eclipsing binaries.

XXVI A. RY Aqr: a low-mass semidetached system with intrinsic variability

Helt, B.E. 172, 155

Photoelectric radial velocities of eclipsing binaries. III. Orbital elements of AN Cam (Text in French)

Imbert. M. 173, 218: 67, 161

Absolute dimensions of eclipsing binaries. X. V 1143 Cygni Andersen, J., Garcia, J.M., Giménez, A., Nordström, B. 174, 107

Determination of the radii of Cepheids. IV. Dimensions of HV 879, HV 899, HV 909, HV 2257, HV 2338, HV 2827 and the distance of the Large Magellanic Cloud (Text in French)

Imbert, M. 175, 30

Photoelectric radial velocities of eclipsing binaries. IV. Orbital elements of BW Aqr (Text in French)

Imbert, M. 180, 278; 69, 397

Model study of wavelength-dependent limb-darkening and radii of M-type giants and supergiants

Scholz, M., Takeda, Y. 186, 200

Photoelectric radial velocities of eclipsing binaries. V. Orbital elements of V 643 Ori

Imbert, M. 186, 363; 71, 69

Accurate angular diameters and effective temperatures for eleven giants cooler than K0 by Michelson interferometry

Di Benedetto, G.P., Rabbia, Y. 188, 114

Stars: dwarfs

The lithium abundance in the extremely metal-deficient dwarf G 64-12

Rebolo, R., Beckman, J., Molaro, P. 172, L17

Photoelectric radial velocities of eclipsing binaries. III. Orbital elements of AN Cam (Text in French)

Imbert, M. 173, 218; 67, 161

Analysis of the Mg II resonance lines in the spectrum of Sirius Freire Ferrero, R., Gouttebroze, P., Talavera, A. 173, 315

Call H emission line cores of late-type dwarfs: variability measurements and velocity field diagnostics

Crivellari, L., Beckman, J.E., Foing, B.H., Vladilo, G. 174, 127

A rotational modulation effect in the flare frequency on EV Lac Doyle, J.G. 177, 201

Photoelectric radial velocities of eclipsing binaries. IV. Orbital elements of BW Aqr (Text in French)

Imbert, M. 180, 278; 69, 397

Rotational modulation and flares on RS CVn and BY Dra-type stars. V. EXOSAT and IUE observations of a flare on EQ Pegasi

Haisch, B.M., Butler, C.J., Doyle, J.G., Rodono, M. 181, 96

Chromospheric Mg II h and k emissions free of interstellar contamination: velocity structure in late-type dwarfs and giants Vladilo, G., Molaro, P., Crivellari, L., Foing, B.H., Beckman, J.E., Genova, R. 185, 233

Stars: dynamics

The rapidly rotating spotted red dwarf flare star Gliese 890 Pettersen, B.R., Lambert, D.L., Tomkin, J., Sandmann, W.H., Lin, H. 183, 66

Stars: early-type

Improved non-LTE Balmer-line profiles for hot stars Herrero, A. 171, 189

Eight-colour photometry of stars associated with selected Sharpless H II regions at $l^{\rm II} \simeq 190^\circ$: S 252, S 254, S 255, S 257, and S 261 Chavarria-K, C., de Lara, E., Hasse, I. 171, 216

The ultraviolet gallium stars

Jaschek, M., Jaschek, C. 171, 380

Temporal variability of the massive X-ray binary 4U 1700-37 Doll, H., Brinkmann, W. 173, 86

High dispersion spectroscopy of point sources and extended objects with an echelle/CCD spectrograph

McKeith, C.D., Bates, B., Catney, M., Barnett, E., Jorden, P.R., van Breda, I.G. 173, 204

The Beta Pictoris circumstellar disk. IV. Redshifted UV lines Lagrange, A.M., Ferlet, R., Vidal-Madjar, A. 173, 289

Radiation driven winds of hot luminous stars. II. Wind models for O-stars in the Magellanic Clouds

Kudritzki, R.P., Pauldrach, A., Puls, J. 173, 293

Infrared properties of CP stars

Kroll, R., Schneider, H., Catalano, F.A., Voigt, H.H. 173, 416; 67, 195

Computed He II spectra for Wolf-Rayet stars: a grid of models Hamann, W.-R., Schmutz, W. 174, 173

The influence of O- and B-stars on star birth rate Nepveu, M. 175, 91

The O6.5f?p star HD 148937 and its interstellar environment Leitherer, C., Chavarria-K., C. 175, 208

Strömgren and H β photometry of early-type stars in northern open clusters. I. NGC 7039, NGC 7063

Schneider, H. 175, 361; 67, 545

IRAS observations of Be stars. I. Statistical study of the IR excess of 101 Be stars

Cote, J., Waters, L.B.F.M. 176, 93

Short-period variations in i Herculis

Chapellier, E., Le Contel, J.M., Valtier, J.C., Gonzalez-Bedolla, S., Ducatel, D., Morel, P.J., Sareyan, J.P., Geiger, I., Antonelli, P. 176, 255

Astrometry of SN 1987 A and Sanduleak -69 202

West, R.M., Lauberts, A., Jørgensen, H.E., Schuster, H.-E. 177, L1

High degree of fragmentation in the nebulae SMC:N 83 and N 84 and discovery of two O stars

Testor, G., Lortet, M.-C. 178, 25

Non-LTE abundance analysis of the early-type high galactic latitude star HD 100340

Keenan, F.P., Brown, P.J.F., Conlon, E.S., Dufton, P.L., Lennon, D.J. 178, 194

A search for coronal line emission from early-type stars. I. ζ Puppis

Baade, D., Lucy, L.B. 178, 213

A search for far-infrared (IRAS) emission from early-type stars at high galactic latitudes

Keenan, F.P., Conlon, E.S., Brown, P.J.F. 178, 317

Identification lists of the far UV spectra of 7 solar chemical composition main sequence stars in the spectral range B2–B9.5

Ramella, M., Castelli, F., Malagnini, M.L., Morossi, C., Pasian, F. 178, 322; 69, 1

uvby photometry of southern B- and A-stars

van der Linden, D., Sterken, C. 178, 325; 69, 157

Four-colour photometry of the early-type eclipsing binary AL Scl

Haefner, R. 178, 327; 69, 295

Absolute parameters of the early-type double-lined eclipsing binary AL Sculptoris (HD 224113)

Haefner, R., Skillen, I., de Groot, M. 179, 141

The nature of the exciting star of RCW 34

Vittone, A.A., de Martino, D., Giovannelli, F., Rossi, C. 179, 157

The region of the supernova remnant MSH 15-52 revisited: A new thermal H II region, H II G 320.5-1.4

Lortet, M.-C., Georgelin, Y.P., Georgelin, Y.M. 180, 65

Speckle interferometric observations of the Wolf-Rayet star AS 431 and of early-type stars in Cyg OB 2

Lortet, M.C., Blazit, A., Bonneau, D., Foy, R. 180, 111

HD 213985: a hot post-AGB star in the galactic halo Waelkens, C., Waters, L.B.F.M., Cassatella, A., Le Bertre, T., Lamers, H.J.G.L.M. 181, L5

The short-period photometric variability of four Be stars Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J. 181, 11; 71, 11

B and A type stars with unexpectedly large colour excesses at IRAS wavelengths

Coté, J. 181, 77

The relation between the visual polarisation and UV narrow absorption lines in irregular Be star variations Brown, J.C., Henrichs, H.F. 182, 107

Up-to-date parameters of the eclipsing triple system IU Aur Mayer, P., Drechsel, H. 183, 61

Different regions of line formation in the envelope of the early emission line star HD 190073

Ringuelet, A.E., Rovira, M., Cidale, L., Sahade, J. 183, 287

Radiation driven winds of hot luminous stars. III. Detailed statistical equilibrium calculations for hydrogen to zinc

Pauldrach, A. 183, 295

A study of the massive O-type binary Iota Orionis

Stickland, D.J., Pike, C.D., Lloyd, C., Howarth, I.D. 184, 185 Radiation-driven winds of hot luminous stars. IV. The influence of multi-line effects

Puls, J. 184, 227

The initial mass function for massive stars: a comparison between the total H α and ultraviolet fluxes of a sample of spiral and irregular galaxies

Buat, V., Donas, J., Deharveng, J.M. 185, 33

Photometry and spectroscopy of the O-type variable HD 167971 Leitherer, C., Forbes, D., Gilmore, A.C., Hearnshaw, J., Klare, G., Krautter, J., Mandel, H., Stahl, O., Strupat, W., Wolf, B., Zickgraf, F.-J., Zirbel, E. 185, 121

Models for stellar coronae: thin coronae with radiative forces Hearn, A.G. 185, 247

The period of BW Vulpeculae

van der Linden, D., Sterken, C. 186, 129

High-dispersion spectroscopy of the Of/WN stars R 84 and S 61 of the Large Magellanic Cloud

Wolf, B., Stahl, O., Seifert, W. 186, 182

Improved NLTE profiles of He II lines in hot stars including their overlap with hydrogen

Herrero, A. 186, 231

The short-period photometric variability of four Be stars Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J. 186, 361; 71, 11

Strömgren photometry of open clusters. II. NGC3532 Schneider, H. 186, 365; 71, 147

Models for the wind of the central star of NGC 6543 Lucy, L.B., Perinotto, M. 188, 125

Properties of blue stragglers in young OB associations Mathys, G. 188, 265; 71, 201

Strömgren photometry of open clusters. III. NGC2323, NGC5662

Schneider, H. 188, 272; 71, 531

Stars: emission-line

High-resolution emission-line spectroscopy of Be stars. II. Fe $\scriptstyle\rm II$ and other weak emission lines

Hanuschik, R.W. 173, 299

The detection of a circumstellar shell around P Cygni by direct CCD imaging

Leitherer, C., Zickgraf, F.-J. 174, 103

Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii Butler, C.J., Doyle, J.G., Andrews, A.D., Byrne, P.B., Linsky, J.L., Bornmann, P.L., Rodonò, M., Pazzani, V., Simon, T. 174, 139

The ultraviolet spectrum of the peculiar emission-line star GG Carinae

Brandi, E., Gosset, E., Swings, J.-P. 175, 151

The peculiar early-type emission line supergiant S 18/SMC: an optical and ultraviolet study

Shore, S.N., Sanduleak, N., Allen, D.A. 176, 59

The ultraviolet spectrum of the peculiar emission-line star GG Carinae: the line identifications

Brandi, E., Gosset, E. 176, 194; 68, 283

The peculiar Be star HD 89249: a spectrum composite with a K

Stahl, O., Leitherer, C. 177, 105

Magnetic structure in cool stars. XIV. Deficiency in chromospheric fluxes from M-type dwarfs

Schrijver, C.J., Rutten, R.G.M. 177, 143

The nature of the exciting star of RCW 34

Vittone, A.A., de Martino, D., Giovannelli, F., Rossi, C. 179,

The short-period photometric variability of four Be stars Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J. 181, 11; 71, 11

The peculiar emission-line supergiant HD 37836 Stahl, O., Wolf, B. 181, 293

Echelle and spectropolarimetric observations of the η Carinae nebulgesity

Meaburn, J., Wolstencroft, R.D., Walsh, J.R. 181, 333

Long term variability of the far-UV high velocity components in γ Cas (1978–1986)

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N., Bourdonneau, B. 182, L25

The relation between the visual polarisation and UV narrow absorption lines in irregular Be star variations

Brown, J.C., Henrichs, H.F. 182, 107

Direct imagery of circumstellar shells around Ofpe/WN9 stars in the galaxy and in the LMC

Stahl, O. 182, 229

An objective-prism survey for $H\alpha$ -emission-line stars of a field in Puppis

Pettersson, B. 182, 361; 70, 69

Different regions of line formation in the envelope of the early emission line star HD 190073

Ringuelet, A.E., Rovira, M., Cidale, L., Sahade, J. 183, 287 Photometry and spectroscopy of the eclipsing P Cygni star R 81 in the Large Magellanic Cloud

Stahl, O., Wolf, B., Zickgraf, F.-J. 184, 193

Spectral features of the B2e star EW Lac before and during the variable shell phase

Hubert, A.M., Floquet, M., Chauville, J., Chambon, M.T. 185, 357; 70, 443

High-dispersion spectroscopy of the Of/WN stars R 84 and S 61 of the Large Magellanic Cloud

Wolf, B., Stahl, O., Seifert, W. 186, 182

Additional constraints on cool-disk models of Be stars based on long observational sequences in the visual range

Hubert, A.M., Floquet, M., Chambon, M.T. 186, 213

The short-period photometric variability of four Be stars Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J. 186, 361; 71, 11

Singly ionized iron as a diagnostic of stellar envelopes. I. The methods

Friedjung, M., Muratorio, G. 188, 100

Stars: evolution of

The origin of the different Wolf-Rayet subtypes

Langer, N. 171, L1

An implicit stellar evolution code, with an application to main-sequence evolution

van der Linden, T.J. 171, 87

Effects of cosmions in the Sun and in globular cluster stars Renzini, A. 171, 121

Studies of early-type variable stars. IV. The orbit and physical dimensions for V $373\,\mathrm{Cas}$

Hill, G., Fisher W.A. 171, 123

Stellar evolution with turbulent diffusion mixing. VII. Application to the determination of primordial ³He abundance Schatzman, E. 172, 1

Four-colour photometry of eclipsing binaries.

XXVI A. RY Aqr: a low-mass semidetached system with intrinsic variability

Helt, B.E. 172, 155

Contact binaries. III. A survey of the equilibrium solutions and their stability

Kähler, H., Matraka, B., Weigert, A. 172, 179

Changes of surface chemistry for standard massive star evolution: Cartography in the HR diagram

Maeder, A. 173, 247

M 62: a link between M 13-like and Oosterhoff I globular clusters

Caloi, V., Castellani, V., Piccolo, F. 173, 416; 67, 181

CCD photometry in globular clusters. II. NGC 7492

Buonanno, R., Corsi, C.E., Ferraro, I., Fusi Pecci, F. 173, 419; 67, 327

Absolute dimensions of eclipsing binaries. X. V 1143 Cygni Andersen, J., Garcia, J.M., Giménez, A., Nordström, B. 174, 107

Influence of stellar evolution on the evolution of planetary nebulae. I. Numerical method and hydrodynamical structures Schmidt-Voigt, M., Köppen, J. 174, 211

Influence of stellar evolution on the evolution of planetary nebulae. II. Confrontation of models with observations

Schmidt-Voigt, M., Köppen, J. 174, 223

Stellar evolution with turbulent diffusion mixing. VI. The solar model, surface ⁷Li and ³He abundances, solar neutrinos and oscillations

Lebreton, Y., Maeder, A. 175, 99

Deep photometry of globular clusters. VI. E2 and E3 Gratton, R.G., Ortolani, S. 175, 357; 67, 373

VBLUW observations of Pleiades G and K dwarfs Van Leeuwen, F., Alphenaar, P., Meys, J.J.M. 175, 359; 67,

483
The galactic globular cluster system: constraints from Synthetic

Horizontal Branches

Caputo, F., De Stefanis, P., Paez, E., Quarta, M.L. 176, 192;
68, 119

The interpretation of the UV light of elliptical galaxies Kjærgaard, P. 176, 210

Magnetic structure in cool stars. XII. Chromospheric activity and rotation of giants and dwarfs

Rutten, R.G.M. 177, 131

Hollow H II regions. II. Mechanism for wind energy dissipation and diffuse X-ray emission

Dorland, H., Montmerle, T. 177, 243

Evidences for a bifurcation in massive star evolution. The ONblue stragglers

Maeder, A. 178, 159

The evolution of intermediate mass Case B close binaries van der Linden, T.J. 178, 170

The fate of the Earth in the red giant envelope of the Sun Goldstein, J. 178, 283

The evolution of helium stars in the mass range 2.0 to 4.0 M_{\odot} : the evolutionary program

Habets, G.M.H.J. 178, 326; 69, 183

Studies in stellar evolution. III. The internal structure constants Hejlesen, P.M. 178, 326; 69, 249

Absolute parameters of the early-type double-lined eclipsing binary AL Sculptoris (HD 224113)

Haefner, R., Skillen, I., de Groot, M. 179, 141

The nucleus of LT-5: an unusual triple system?

Jasniewicz, G., Duquennoy, A., Acker, A. 180, 145

Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 180, 278; 69, 371

Distribution of I(HeII λ 4686)/I(H β) in planetary nebulae and masses of their nuclei

Szczerba, R. 181, 365

Evolution of massive stars without convective core overshooting Vanbeveren, D. 182, 207

Grids of evolutionary models of massive stars with mass loss and overshooting. Properties of Wolf-Rayet stars sensitive to overshooting

Maeder, A., Meynet, G. 182, 243

An evolutionary scenario for the black hole binary A0620-00 de Kool, M., van den Heuvel, E.P.J., Pylyser, E. 183, 47

The rapidly rotating spotted red dwarf flare star Gliese 890

Pettersen, B.R., Lambert, D.L., Tomkin, J., Sandmann, W.H., Lin, H. 183, 66

The galactic globular cluster system: calibration of the ratio R = N(HB)/N(RGB)

Caputo, F., Martinez Roger, C., Paez, E. 183, 228

Mass-loss of globular cluster red giants. A semi-empirical estima-

Martinez Roger, C., Paez, E. 184, 155

Evolution of stellar binaries formed by tidal capture

Ray, A., Kembhavi, A.K., Antia, H.M. 184, 164

An evolutionary scenario for the formation of highly eccentric Be/X-ray binaries

Habets, G.M.H.J. 184, 209

White dwarfs in Omega Centauri?

Ortolani, S., Rosino, L. 185, 102

Roxburgh's criterion for convective overshooting

Baker, N.H., Kuhfuß, R. 185, 117

Evolutionary models for R CrB stars

Weiss, A. 185, 165

Photometry and spectroscopy of stars in the region of a highly reddened cluster in Ara

Westerlund, B.E. 185, 354; 70, 311

Erratum: Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 185, 358; 70, 141

Theoretical expressions for evolutionary period changes in nonradially pulsating stars

Bruggen, P., Smeyers, P. 186, 170

Some embarrassments in current treatments of convective overshooting

Renzini, A. 188, 49

The initial-final mass relation: galactic disk and Magellanic Clouds

Weidemann, V. 188, 74

Properties of blue stragglers in young OB associations Mathys, G. 188, 265; 71, 201

Stars: faint blue

Non-LTE abundance analysis of the early-type high galactic latitude star HD 100340

Keenan, F.P., Brown, P.J.F., Conlon, E.S., Dufton, P.L., Lennon, D.J. 178, 194

Discovery of a magnetic DA white dwarf with distinct $H\beta$ and $H\alpha$ Zeeman triplets

Hagen, H.-J., Groote, D., Engels, D., Haug, U., Toussaint, F. 183, L7

Stars: flare

Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii Butler, C.J., Doyle, J.G., Andrews, A.D., Byrne, P.B., Linsky, J.L., Bornmann, P.L., Rodonò, M., Pazzani, V., Simon, T. 174, 139

Radio outbursts in HR 1099: quantitative analysis of flux spectrum and intensity distribution

Klein, K.-L., Chiuderi-Drago, F. 175, 179

A rotational modulation effect in the flare frequency on EV Lac Doyle, J.G. 177, 201

Rotational modulation and flares on RS CVn and BY Dra-type stars. V. EXOSAT and IUE observations of a flare on EQ Pegasi

Haisch, B.M., Butler, C.J., Doyle, J.G., Rodono, M. 181, 96

Discovery of flare activity on BD+3°4138 B Pettersen, B.R., Hawley, S.L. 181, 402

Status of the Perseus optical flasher

Corso, G.J., Ringwald, F.A., Harris, R.W. 183, L9

The rapidly rotating spotted red dwarf flare star Gliese 890 Pettersen, B.R., Lambert, D.L., Tomkin, J., Sandmann, W.H., Lin, H. 183, 66

Activity in late-type dwarfs. I. Walraven and Johnson photometry of flares and spot variations on Gl 867A (= FK Aqr) in 1979

Byrne, P.B., Black, E., Thé, P.S. 186, 261

Activity in late-type dwarfs. II. Flares and spot variations on Gl 867 A (= FK Aqr) in 1981

Byrne, P.B., Doyle, J.G. 186, 268

The flare energy spectrum of EV Lac Mavridis, L.N., Avgoloupis, S. 188, 95

Fast transient X-rays from flare stars and RS CVn binaries Rao, A.R., Vahia, M.N. 188, 109

Stars: formation of

T Tauri stars and dust clouds in a region of the Gum nebula Pettersson, B. 171, 101

CCD observations of jets from young stars Ray, T.P. 171, 145

Circumnuclear star formation in the central region of the barred spiral galaxy NGC 1097

Hummel, E., van der Hulst, J.M., Keel, W.C. 172, 32

Jeans collapse in a turbulent medium

Bonazzola, S., Falgarone, E., Heyvaerts, J., Pérault, M., Puget,
J.L. 172, 293

SiO emission from the Orion KL region Zeng, Q., Sun, J., Lou, G.F. 172, 299

A polarimetric study of the Mon R 2 star-forming region Hodapp, K.-W. 172, 304

Deuterated ammonia in the Orion hot core Walmsley, C.M., Hermsen, W., Henkel, C., Mauersberger, R., Wilson, T.L. 172, 311

IR reflection nebulae near molecular outflow sources Lenzen, R. 173, 124

CO observations of IRAS Circular No. 9 sources 19520+2759 and 01133+6434: regions of star formation Arquilla, R., Kwok, S. 173, 271

Ara OB1: A stellar association formed by the action of an energetic event?

 Arnal, E.M., Cersosimo, J.C., May, J., Bronfman, L. 174, 78
 A population of faint blue stars in a southern external part of the Large Magellanic Cloud
 Pierre, M. 175, 54

The influence of O- and B-stars on star birth rate Nepveu, M. 175, 91

Herbig-Haro emission in two bipolar reflection nebulae Neckel, T., Staude, H.J., Sarcander, M., Birkle, K. 175, 231

NH₃ observations of the HH1-HH2 region Martin-Pintado, J., Cernicharo, J. 176, L1

New detections of probable massive pre-main sequence stars in the southern galactic plane

Braz, M.A., Epchtein, N. 176, 245

Physical conditions in the IRAS 16293-2422 parent cloud Menten, K.M., Serabyn, E., Güsten, R., Wilson, T.L. 177, L57 Polarimetric mapping of a new infrared reflection nebula GGD 27 IRS

Yamashita, T., Sato, S., Nagata, T., Suzuki, H., Hough, J.H., McLean, I.S., Garden, R., Gatley, I. 177, 258

The effect of a poloidal magnetic field on the stability of a rotating self-gravitating disc

Schmitz, F. 179, 167

The molecular counterparts of the submillimeter compact sources in L 1551 and B 335

Walmsley, C.M., Menten, K.M. 179, 231

The fractal dimension of star-forming sites in galaxies Feitzinger, J.V., Galinski, T. 179, 249

Ultraviolet observations and star-formation rate in galaxies Donas, J., Deharveng, J.M., Laget, M., Milliard, B., Huguenin, D. 180, 12

Ammonia in the galactic halo and the infrared cirrus Mebold, U., Heithausen, A., Reif, K. 180, 213

The stability of differentially rotating self-gravitating gas clouds. II: Polytropic configurations

Schmitz, F., Ebert, R. 181, 41

Magnetic field strengths in molecular clouds Crutcher, R.M., Kazès, I., Troland, T.H. 181, 119

Dust emission and star formation in compact HII regions Chini, R., Krügel, E., Wargau, W. 181, 378

The evolution of clumpy gas in young elliptical galaxies Kunze, R., Loose, H.-H., Yorke, H.W. 182, 1

Observations of cold dust in S 106

Mezger, P.G., Chini, R., Kreysa, E., Wink, J. 182, 127 CCD photometry and dynamics of the peculiar galaxy ESO 217-G09

Marston, A.P. 183, 21

Analysis of absorption-line spectra in a sample of 164 galactic nuclei

Bica, E., Alloin, D. 183, 188; 70, 281

Optical and near-infrared observations of IRAS galaxies. II Moorwood, A.F.M., Véron-Cetty, M.-P., Glass, I.S. 184, 63 Mass function of stars in the solar neighbourhood

Rana, N.C. 184, 104

The possibility of a single fragmentation law for the formation of different astronomical objects

Di Fazio, A., Capuzzo Dolcetta, R. 184, 263

Molecular line observations of the H II region G34.3+0.2

Matthews, N., Little, L.T., Macdonald, G.H., Andersson, M.,
Davies, S.R., Riley, P.W., Dent, W.R.F., Vizard, D. 184, 284

Near-IR observations of Sharpless regions. I. S269, S271, S307 and S311

Persi, P., Ferrari-Toniolo, M., Shivanandan, K., Spinoglio, L. 185, 356; 70, 437

Star formation in the nucleus of the galaxy NGC 5253 González-Riestra, R., Rego, M., Zamorano, J. 186, 64

The spectral hallmark of a contracting protostellar fragment Anglada, G., Rodríguez, L.F., Cantó, J., Estalella, R., López, R. 186, 280

Giant-scale supernova remnants. The role of differential galactic rotation and the formation of molecular clouds Tenorio-Tagle, G., Palouš, J. 186, 287

A collapse model of the turbulent presolar nebula Tscharnuter, W.M. 188, 55

Stars: general

Relation between mass and central temperature in supermassive stars

Mitalas, R., Manuel, P.W. 173, 244

Si

C

Erratum: Influence of abundances on mass-loss determination for WC stars

van der Hucht, K.A., Cassinelli, J.P., Williams, P.M. 175, 356 A compilation of distances to cataclysmic variable stars

Berriman, G. 176, 189; 68, 41

Rotational modulation and flares on RS CVn and BY Dra stars. III. IUE observations of V711 Tau (=HR 1099), II Peg, and AR Lac

Rodonò, M., Byrne, P.B., Neff, J.E., Linsky, J.L., Simon, T., Butler, C.J., Catalano, S., Cutispoto, G., Doyle, J.G., Andrews, A.D., Gibson, D.M. 176, 267

Erratum: The "Bright Stars" with UBV-colors close to those of the Sun

Neckel, H. 176, 372

The Baade-Wesselink method applied to field RR Lyrae stars. I. UVBRI photoelectric and radial velocity data

Cacciari, C., Clementini, G., Prévot, L., Lindgren, H., Lolli, M., Oculi, L. 178, 325; 69, 135

uvby observations of A, F, G and K field stars

Manfroid, J., Oblak, E., Pernier, B. 180, 281; 69, 505

A faint object processing software: description and testing *Infante*, L. 183, 177

Stars: giant

Empirical colour-metallicity relations for Population II giant stars

Martinez Roger, C. 171, 77

Application of the infrared flux method to globular cluster stars. The M 3 giant branch

Arribas, S., Martinez Roger, C. 178, 106

Mass-loss of globular cluster red giants. A semi-empirical estima-

Martinez Roger, C., Paez, E. 184, 155

Chromospheric MgII h and k emissions free of interstellar contamination: velocity structure in late-type dwarfs and giants

Vladilo, G., Molaro, P., Crivellari, L., Foing, B.H., Beckman, J.E., Genova, R. 185, 233

Infrared observations of metal-deficient stars

Arribas, S., Martinez Roger, C. 185, 354; 70, 303

Accurate angular diameters and effective temperatures for eleven giants cooler than K0 by Michelson interferometry

Di Benedetto, G.P., Rabbia, Y. 188, 114

A model for the intrinsic linear polarization of cool giant and supergiant stars

Marcondes-Machado, J.A. 188, 131

Stars: helium

The evolution of helium stars in the mass range 2.0 to 4.0 M_{\odot} : the evolutionary program

Habets, G.M.H.J. 178, 326; 69, 183

Evolutionary models for R CrB stars

Weiss, A. 185, 165

Linear nonadiabatic pulsations of R CrB models Weiss, A. 185, 178

Stars: Hertzsprung-Russell diagram

CCD photometry in globular clusters. II. NGC 7492

Buonanno, R., Corsi, C.E., Ferraro, I., Fusi Pecci, F. 173, 419; 67, 327

A new determination of the statistical relations between stellar spectral and luminosity classes and stellar effective temperature and luminosity

de Jager, C., Nieuwenhuijzen, H. 177, 217

Red stars in the Fornax dwarf galaxy

Westerlund, B.E., Edvardsson, B., Lundgren, K. 178, 41

The galactic globular cluster system: calibration of the ratio R = N(HB)/N(RGB)

Caputo, F., Martinez Roger, C., Paez, E. 183, 228

Stars: individual

AB Aur

Rotational modulation of the wind of the PMS star AB Aur: new observations in CIV and MgII

Catala, C., Praderie, F., Felenbok, P. 182, 115

AG Car

Direct imagery of circumstellar shells around Ofpe/WN9 stars in the galaxy and in the LMC

Stahl, O. 182, 229

AG Dra

Spectroscopic and photometric studies of the symbiotic star AG

Iijima, T., Vittone, A., Chochol, D. 178, 203

AH Her

Spectroscopy of the primary and secondary components of the dwarf nova AH Herculis

Bruch, A. 172, 187

AM Her

Disappearance of periodic X-ray minima in AM Her Priedhorsky, W., Marshall, F.J., Hearn, D.R. 173, 95

AN Can

Photoelectric radial velocities of eclipsing binaries. III. Orbital elements of AN Cam (Text in French)

Imbert, M. 173, 218; 67, 161

AO Vel

Four-colour photometry of eclipsing binaries. XXVIIa. Light curves of AO Velorum

Grønbech, B. 176, 195; 68, 317

AS43

Speckle interferometric observations of the Wolf-Rayet star AS 431 and of early-type stars in Cyg OB 2

Lortet, M.C., Blazit, A., Bonneau, D., Foy, R. 180, 111

BW Agr

Four-colour photometry of eclipsing binaries. XXVIII. Light curves of BW Aquarii

Grønbech, B., Andersen, J., Clausen, J.V., Helt, B.E., Jensen, K.S. 176, 195; 68, 323

Photoelectric radial velocities of eclipsing binaries. IV. Orbital elements of BW Aqr (Text in French)

Imbert, M. 180, 278; 69, 397

BW Vul

The light curve of BW Vulpeculae Sterken, C., Young, A., Furenlid, I. 177, 150

CH Cyg

X-ray emission from the symbiotic system CH Cygni Leahy, D.A., Taylor, A.R. 176, 262

CO Aur

The pulsation modes of CO Aur Babel, J., Burki, G. 181, 34

COD-48° 1741

Orbital elements for double stars of Population II. The high-velocity system COD-48° 1741

Lindgren, H., Ardeberg, A., Zuiderwijk, E. 188, 39

EF Eri

Discovery of 2-3 s quasi-periodic oscillations in EF Eri Larsson, S. 181, L15

The magnetic field strength in the emission line region of the AM Her system EF Eridani (=2A0311-277)

Seifert, W., Östreicher, R., Wunner, G., Ruder, H. 183, L1 Simultaneous five-colour (UBVRI) polarimetry of EF Eri Piirola, V., Reiz, A., Coyne, G.V. 186, 120

EV Lac

The flare energy spectrum of EV Lac Mavridis, L.N., Avgoloupis, S. 188, 95

EW Lac

Spectral features of the B2e star EW Lac before and during the variable shell phase

Hubert, A.M., Floquet, M., Chawille, J., Chambon, M.T. 185, 357; 70, 443

Additional constraints on cool-disk models of Be stars based on long observational sequences in the visual range

Hubert, A.M., Floquet, M., Chambon, M.T. 186, 213

EZ CMa

The possible appearance of a second period in the WN 5 star EZ Canis Majoris

Gosset, E., Vreux, J.-M. 178, 153

FK Agr

Activity in late-type dwarfs. II. Flares and spot variations on Gl 867 A (= FK Aqr) in 1981

Byrne, P.B., Doyle, J.G. 186, 268

FO Vir

Photometry and elements of the pre-contact system FO Vir Poretti, E., Niarchos, P.G., Mantegazza, L., Antonello, E., Conconi, P. 178, 328; 69, 335

FS Lup

FS Lupi: a contact binary in poor thermal contact Milano, L., Russo, G., Terzan, A. 183, 265

FS Lupi

The classification of planetary nebulae Faundez-Abans, M., Maciel, W.J. 183, 324

GG Car

The ultraviolet spectrum of the peculiar emission-line star GG

Brandi, E., Gosset, E., Swings, J.-P. 175, 151

The ultraviolet spectrum of the peculiar emission-line star GG Carinae: the line identifications

Brandi, E., Gosset, E. 176, 194; 68, 283

H 0538+608

The anomalous ultraviolet spectrum of the AM Her star H 0538+608

Bonnet-Bidaud, J.M., Mouchet, M. 188, 89

HD 37819

HD 37819 \equiv V 356 Aur, a double-mode δ Sct star with an unusual period ratio

Poretti, E., Mantegazza, L., Antonello, E. 181, 273

HD 37836

The peculiar emission-line supergiant HD 37836 Stahl, O., Wolf, B. 181, 293

HD 89249

The peculiar Be star HD 89249: a spectrum composite with a K star

Stahl, O., Leitherer, C. 177, 105

HD 100340

Non-LTE abundance analysis of the early-type high galactic latitude star HD 100340

Keenan, F.P., Brown, P.J.F., Conlon, E.S., Dufton, P.L., Lennon, D.J. 178, 194

HD 167971

Photometry and spectroscopy of the O-type variable HD 167971 Leitherer, C., Forbes, D., Gilmore, A.C., Hearnshaw, J., Klare, G., Krautter, J., Mandel, H., Stahl, O., Strupat, W., Wolf, B., Zickgraf, F.-J., Zirbel, E. 185, 121

HD 190073

Different regions of line formation in the envelope of the early emission line star HD 190073

Ringuelet, A.E., Rovira, M., Cidale, L., Sahade, J. 183, 287

HD 193793

New evidence at X-ray and COS-B $\gamma\text{-ray}$ frequencies for non-thermal phenomena in Wolf-Rayet stars

Pollock A.M.T. 171, 135

HD 200775

Interstellar extinction and polarimetric properties of the star HD 200775

Pfau, W., Piirola, V., Reimann, H.-G. 179, 134

HD 213985

HD 213985: a hot post-AGB star in the galactic halo Waelkens, C., Waters, L.B.F.M., Cassatella, A., Le Bertre, T., Lamers, H.J.G.L.M. 181, L5

He 3-519

Direct imagery of circumstellar shells around Ofpe/WN9 stars in the galaxy and in the LMC $\,$

Stahl, O. 182, 229

HR 1099

Radio outbursts in HR 1099: quantitative analysis of flux spectrum and intensity distribution

Klein, K.-L., Chiuderi-Drago, F. 175, 179

S

HR 3203

Four-colour photometry of eclipsing binaries. XXVIIa. Light curves of AO Velorum

Grønbech, B. 176, 195; 68, 317

HR 6559

Optical region elemental abundance analyses of B and A stars. VI. The normal stars HR 6559 (A7 IV) and η Leporis (F0 IV)

Adelman, S.J. 173, 420; 67, 353

IRC + 10216

The opacity of the dust around the carbon star IRC+10216 Le Bertre, T. 176, 107

KM Hya

Erratum: Absolute dimensions of eclipsing binaries. III. KW Hydrae: a detached Am system with unequal components Andersen, J., Vaz, L.P.R. 175, 355

KW Hva

Erratum: Absolute dimensions of eclipsing binaries. III. KW Hydrae: a detached Am system with unequal components

Andersen, J., Vaz., L.P.R. 175, 355

LSI+61°303

Near-infrared photometry of LSI +61°303 D'Amico, N., Lorenzetti, D., Massaro, E., Saraceno, P., Strafella, F. 180, 114

P Cvg

The detection of a circumstellar shell around P Cygni by direct CCD imaging

Leitherer, C., Zickgraf, F.-J. 174, 103

PCyg

The extended radio emission of PCygni Baars, J.W.M., Wendker, H.J. 181, 210

D 81

Photometry and spectroscopy of the eclipsing P Cygni star R 81 in the Large Magellanic Cloud Stahl, O., Wolf, B., Zickgraf, F.-J. 184, 193

D 94

High-dispersion spectroscopy of the Of/WN stars R 84 and S 61 of the Large Magellanic Cloud

Wolf, B., Stahl, O., Seifert, W. 186, 182

RY Agr

Four-colour photometry of eclipsing binaries.

XXVI A. RY Aqr: a low-mass semidetached system with intrinsic variability

Helt, B.E. 172, 155

Four-colour photometry of eclipsing binaries. XXVI B. Light curves of RY Aqr

Helt, B.E. 176, 193; 68, 187

S 61

High-dispersion spectroscopy of the Of/WN stars R 84 and S 61 of the Large Magellanic Cloud

Wolf, B., Stahl, O., Seifert, W. 186, 182

SU Cas

Hydrodynamic models for the short-period, classical Cepheid, SU Cas

Aikawa, T., Antonello, E., Simon, N.R. 181, 25

SW Lac

New photoelectric light curves and elements of SW Lacertae Niarchos, P.G. 173, 420; 67, 365

TZ Men

Absolute dimensions of eclipsing binaries. XII. TZ Mensae Andersen, J., Clausen, J.V., Nordström, B. 175, 60

Four-colour photometry of eclipsing binaries. XXIX. Light curves of TZ Mensae

Grønbech, B., Andersen, J., Clausen, J.V., Nordström, B., Reipurth, B. 176, 196; 68, 331

V 1143 Cyg

Absolute dimensions of eclipsing binaries. X. V 1143 Cygni Andersen, J., Garcia, J.M., Giménez, A., Nordström, B. 174, 107

V 1285 Cyg

The reclassification of the supposed dwarf nova V 1285 Cygni as a semiregular variable

Bruch, A., Aniol, R., Cunow, B. 185, 203

V 451 Oph

Four-colour photometry of eclipsing binaries. XXV. Light curves of V 451 Ophiuchi

Clausen, J.V., Giménez, A., García, J.M., Rolland, A. 176, 192; 68, 141

VW Hyd

The viscosity-surface density relation and implications for the early rise of dwarf novae outbursts

Meyer-Hofmeister, E. 175, 113

V 643 Ori

Photoelectric radial velocities of eclipsing binaries. V. Orbital elements of V 643 Ori

Imbert, M. 186, 363; 71, 69

Z CMa

Z CMa resolved at near infrared wavelengths: one more piece to the puzzle

Leinert, Ch., Haas, M. 182, L47

βHyi

An upper limit on p-mode amplitudes in β Hyi Frandsen, S. 181, 289

β Lyr

BV photometry of β Lyrae in 1979 and 1981 Aslan, Z., Derman, E., Engin, S., Yilmaz, N. 188, 274; 71, 597

β Pic

The Beta Pictoris circumstellar disk. IV. Redshifted UV lines Lagrange, A.M., Ferlet, R., Vidal-Madjar, A. 173, 289

The Beta Pictoris circumstellar disk. V. Time variations of the Ca II-K line

Ferlet, R., Hobbs, L.M., Vidal-Madjar, A. 185, 267

εCrA

Evolution of the periodicity of the W UMa system ε CrA Manfroid, J., Heck, A., Lunel, M., Bergeat, J. 176, 180

Z1 Ret

ζ¹ and ζ² Reticuli: a puzzling solar-type twin system Da Silva, L., Foy, R. 177, 204

Z2 Ret

ζ¹ and ζ² Reticuli: a puzzling solar-type twin system Da Silva, L., Foy, R. 177, 204

η Lep

Optical region elemental abundance analyses of B and A stars. VI. The normal stars HR 6559 (A7 IV) and η Leporis (F0 IV)

Adelman, S.J. 173, 420; 67, 353

θ Cr B

Far-UV variability of θ Cr B in 1985–86: a progression toward higher velocities

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N. 173, L8

32 Agr

Optical region elemental abundance analyses of B and A stars. VII. The metallic-lined star 32 Aquarii

Kocer, D., Bolcal, C., Inelmen, E., Adelman, S.J. 182, 360; 70,

Stars: interior; see Stars: structure of

Stars: late-type

Observational tests for stellar evolution and pulsation theory. I. The globular clusters M4 and M15

Caputo, F. 172, 67

Measurements and study of rotational velocities in RS CVn star systems

Huisong, T., Xuefu, L. 172, 74

Measurements and study of rotational velocities in RS CVn star systems

Huisong, T., Xuefu, L. 172, 74

Magnetic structure in cool stars. XI. Relations between radiative fluxes measuring stellar activity, and evidence for two components in stellar chromospheres

Schrijver, C.J. 172, 111

Stellar radius determination from IRAS 12 µm fluxes

Perrin, M.-N., Karoji, H. 172, 235

Magnesium isotopes in super-metal-rich stars

Barbuy, B. 172, 251

Very cold IRAS objects and pre-planetary nebulae: CO observations

Likkel, L., Omont, A., Morris, M., Forveille, T. 173, L11
H₂O maser emission from stars in the IRAS point-source catalog

Zuckerman, B., Lo, K.Y. 173, 263

Interferometric observations of the H₂O and OH maser emission from S Persei

Diamond, P.J., Johnston, K.J., Chapman, J.M., Lane, A.P., Bowers, P.F., Spencer, J.H., Booth, R.S. 174, 95

Lithium abundances of southern F, G and K dwarfs and subgiants

Pallavicini, R., Cerruti-Sola, M., Duncan, D.K. 174, 116

Call H emission line cores of late-type dwarfs: variability measurements and velocity field diagnostics

Crivellari, L., Beckman, J.E., Foing, B.H., Vladilo, G. 174, 127

Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii Butler, C.J., Doyle, J.G., Andrews, A.D., Byrne, P.B., Linsky, J.L., Bornmann, P.L., Rodonò, M., Pazzani, V., Simon, T. 174, 139

Solar-type giants: new X-ray detections from EXOSAT observations

Gondoin, P., Mangeney, A., Praderie, F. 174, 187

Contribution to the study of F, G, K, M binaries. IV. Orbital elements of the spectroscopic binary HD 23838 (Text in French)

Pédoussaut, A., Carquillat, J.M., Ginestet, N. 175, 136
Radial velocities of southern stars obtained with the photoelectric scanner CORAVEL. VI. 233 F to M type stars in and near the Small Magellanic Cloud. Comparison with 80 spectrographic radial velocities of O to K type stars in this Galaxy

Maurice, E., Andersen, J., Ardeberg, A., Bardin, C., Imbert, M., Lindgren, H., Martin, N., Mayor, M., Nordström, B., Prévot, L., Rebeirot, E., Rousseau, J. 175, 358; 67, 423

IRAS 09371+1212: an icy evolved, mass-losing star with a unique IR spectrum

Forveille, T., Morris, M., Omont, A., Likkel, L. 176, L13

A new strong maser: HCN

Guilloteau, S., Omont, A., Lucas, R. 176, L24

Five-colour (UBVRI) photopolarimetry of FK Comae and HD 199178

Huovelin, J., Piirola, V., Vilhu, O., Efimov, Y.S., Shakhovskoy, N.M. 176, 83

Equivalent widths for giants in metal rich globular clusters. I Gratton, R.G., Quarta, M.L., Ortolani, S. 176, 188; 68, 21 BVR photometry of late-type stars in the direction of the Lar.

BVR photometry of late-type stars in the direction of the Large Magellanic Cloud

Bohin A. Martin V. Bayrin V. Brivat I. Behairst F.

Robin, A., Martin, N., Peyrin, Y., Prévot, L., Rebeirot, E., Rousseau, J. 176, 189; 68, 63

Equivalent widths for field halo and disk stars

Gratton, R.G., Sneden, C. 176, 193; 68, 193

Radial velocities of bright southern stars. VI. Standard and reference stars 1983–1986

Andersen, J., Nordström, B., Jensen, K.S. 176, 196; 68, 347 Rotational modulation and flares on RS CVn and BY Dra stars. III. IUE observations of V 711 Tau (= HR 1099), II Peg, and AR

Rodonò, M., Byrne, P.B., Neff, J.E., Linsky, J.L., Simon, T., Butler, C.J., Catalano, S., Cutispoto, G., Doyle, J.G., Andrews, A.D., Gibson, D.M. 176, 267

Magnetic structure in cool stars. XII. Chromospheric activity and rotation of giants and dwarfs

Rutten, R.G.M. 177, 131

Magnetic structure in cool stars. XIV. Deficiency in chromospheric fluxes from M-type dwarfs

Schrijver, C.J., Rutten, R.G.M. 177, 143

Magnetic structure in cool stars. XIII. Appropriate units for the rotation-activity relation

Rutten, R.G.M., Schrijver, C.J. 177, 155

Gray's constant and "swiss cheese" and "sea serpents" in stellar convection zones

Belvedere, G., Pidatella, R.M., Stix, M. 177, 183

Dust formation in stellar winds. V. The minimum mass loss rate for dust-driven winds

Gail, H.-P., Sedlmayr, E. 177, 186

A rotational modulation effect in the flare frequency on EV Lac Doyle, J.G. 177, 201

 ζ^1 and ζ^2 Reticuli: a puzzling solar-type twin system Da Silva, L., Foy, R. 177, 204

A study of multiple stellar systems with CORAVEL (I) Duquennoy, A. 178, 114

A comparison of coronal X-ray emission observed with the Einstein and EXOSAT observatories

Schmitt, J.H.M.M., Pallavicini, R., Monsignori-Fossi, B.C., Harnden, F.R., Jr. 179, 193

Rotational modulation and flares on RS CVn and BY Dra stars. VI. Physical parameters of the chromospheres/transition regions of V711 Tau (HR 1099), II Peg and AR Lac during October

Byrne, P.B., Doyle, J.G., Brown, A., Linsky, J.L., Rodonò, M. 180, 172

Spectrophotometry fo bright F-, G-, K- and M-type stars. I. Measurements of 60 southern and equatorial stars

Kiehling, R. 180, 280; 69, 465

The wings of the calcium infrared triplet lines in solar-type stars Smith, G., Drake, J.J. 181, 103

Polarization and infrared colors of symbiotic stars. Schulte-Ladbeck, R.E., Magalhães, A.M. 181, 213

A study of the silicate emission features of the IRAS low resolution spectra

Gal, O., de Muizon, M., Papoular, R., Pégourié, B. 183, 29

The rapidly rotating spotted red dwarf flare star Gliese 890

Pettersen, B.R., Lambert, D.L., Tomkin, J., Sandmann, W.H., Lin. H. 183, 66

A search for non-stellar contributions to the optical and near-IR flux of RS CVn binaries. I. The cases of TY Pyx, UV Psc, RU Cnc and VV Mon

Busso, M., Scaltriti, F., Persi, P., Robberto, M., Silvestro, G.

The strange "spots" on the T Tauri star RY Lupi Liseau, R., Lindroos, K.P., Fischerström, C. 183, 274

Chemical modelling of molecular sources. V. IRC + 10216 Nejad, L.A.M., Millar, T.J. 183, 279

A study of UV spectra of ζ Aur/VV Cep stars. X. Mass-loss of α Sco A from high-resolution IUE spectra of α Sco B

Hagen, H.-J., Hempe, K., Reimers, D. 184, 256

Chromospheric MgII h and k emissions free of interstellar contamination: velocity structure in late-type dwarfs and giants

Vladilo, G., Molaro, P., Crivellari, L., Foing, B.H., Beckman, J.E., Genova, R. 185, 233

Model study of wavelength-dependent limb-darkening and radii of M-type giants and supergiants

Scholz, M., Takeda, Y. 186, 200

Near-infrared excesses of barium stars Hakkila, J., McNamara, B.J. 186, 255

An analysis of the emission features of the IRAS low-resolution spectra of carbon stars

Baron, Y., de Muizon, M., Papoular, R., Pégourié, B. 186,

Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 186, 362; 71, 39

Episodic mass loss in late-type stars due to acoustic wave packets

Cuntz, M. 188, L5

Accurate angular diameters and effective temperatures for eleven giants cooler than K0 by Michelson interferometry

Di Benedetto, G.P., Rabbia, Y. 188, 114

Erratum: Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 188, 269; 71, 411

A $uvby\beta$ survey of northern-hemisphere active binaries. I. The observations

Reglero, V., Giménez, A., de Castro, E., Fernandez-Figueroa, M.J. 188, 270; 71, 421

Stars: long-period variables

Optical and infrared observations of two oxygen-rich unidentified **IRAS** sources

Le Bertre, T., Epchtein, N. 171, 116

First detection of SiO emission from circumstellar shells at the galactic centre

Lindqvist, M., Winnberg, A., Ukita, N., Johansson, L.E.B. 172,

SiO maser emission in evolved stars: relation to IR continuum Bujarrabal, V., Planesas, P., del Romero, A. 175, 164 A new strong maser: HCN

Guilloteau, S., Omont, A., Lucas, R. 176, L24

Pulsational long-term behaviour of the cool oxygen-rich Mira variables R Leonis. I. The data

Hoeppe, G.R. 177, 351; 68, 419

Pulsational long-term behaviour of the cool oxygen-rich Mira variable R Leonis. II. Results and discussion

Hoeppe, G.R. 178, 131

Optical and infrared observations of two type-II OH/IR sources Le Bertre, T. 180, 160

Shape of the visual light curve and detection of a 1.35 cm H₂O line in single M Miras

Vardya, M.S. 182, 75

The reclassification of the supposed dwarf nova V 1285 Cygni as a semiregular variable

Bruch, A., Aniol, R., Cunow, B. 185, 203

Dust shells around Miras and OH/IR stars: interpretation of IRAS and other infrared measurements

Bedjin, P.J. 186, 136

Model study of wavelength-dependent limb-darkening and radii of M-type giants and supergiants

Scholz, M., Takeda, Y. 186, 200

A model for the intrinsic linear polarization of cool giant and supergiant stars

Marcondes-Machado, J.A. 188, 131

Stars: luminosities of

The radio luminosity of pulsars

Stollman, G.M. 171, 152

The calibration problem. I. Estimation of mean absolute magnitude using trigonometric parallaxes

Smith H., Jr. 171, 336

The calibration problem. II. Trigonometric parallaxes selected according to proper motion and the problem of statistical parallaxes

Smith H., Jr. 171, 342

A new determination of the statistical relations between stellar spectral and luminosity classes and stellar effective temperature and luminosity

de Jager, C., Nieuwenhuijzen, H. 177, 217

Application of the infrared flux method to globular cluster stars. The M3 giant branch

Arribas, S., Martinez Roger, C. 178, 106

Small Magellanic Cloud: Hy-line equivalent widths and luminosity classes of the brightest blue star members

Azzopardi, M. 180, 279; 69, 421

The calibration problem. III. First-order solution for mean absolute magnitude and dispersion

Smith, H., Jr. 181, 391

The calibration problem. IV. The Lutz-Kelker correction Smith, H., Jr. 188, 233

Stars: magnetic field

Observations of magnetic hydrogen lines in the white dwarf GD 229

Östreicher, R., Seifert, W., Ruder, H. Wunner, G. 173, L15

Are the galactic-bulge X-ray sources magnetized? Kundt, W., Özel, M.E., Ercan, E.N. 177, 163

Gray's constant and "swiss cheese" and "sea serpents" in stellar convection zones

Belvedere, G., Pidatella, R.M., Stix, M. 177, 183

Discovery of 2-3 s quasi-periodic oscillations in EF Eri Larsson, S. 181, L15

The magnetic field strength in the emission line region of the AM Her system EF Eridani (=2A0311-277)

Seifert, W., Östreicher, R., Wunner, G., Ruder, H. 183, L1

Discovery of a magnetic DA white dwarf with distinct $H\beta$ and $H\alpha$ Zeeman triplets

Hagen, H.-J., Groote, D., Engels, D., Haug, U., Toussaint, F. 183, L7

Five-colour (UBVRI) polarimetry of H 0139-68 = BL Hydri Piirola, V., Reiz, A., Coyne, G.V. 185, 189

Simultaneous five-color (UBVRI) polarimetry of EF Eri Piirola, V., Reiz, A., Coyne, G.V. 186, 120

The diffusion of gallium in main-sequence peculiar stars Alecian, G., Artru, M.-C. 186, 223

A model for the intrinsic linear polarization of cool giant and supergiant stars

Marcondes-Machado, J.A. 188, 131

Stars: mass loss

Optical and infrared observations of two oxygen-rich unidentified IRAS sources

Le Bertre, T., Epchtein, N. 171, 116

New evidence at X-ray and COS-B $\gamma\text{-ray}$ frequencies for non-thermal phenomena in Wolf-Rayet stars

Pollock A.M.T. 171, 135

CCD observations of jets from young stars

Ray, T.P. 171, 145

Dust formation in stellar winds. III. Self-consistent models for dust-driven winds around C-stars

Gail, H.P., Sedlmayr, E. 171, 197

Accretion-driven jets from young stars

Kaburaki, O., Itoh, M. 172, 191

Far-UV variability of θ Cr B in 1985–86: a progression toward higher velocities

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N. 173, L8 Very cold IRAS objects and pre-planetary nebulae: CO observations

Likkel, L., Omont, A., Morris, M., Forveille, T. 173, L11 Temporal variability of the massive X-ray binary 4U 1700-37 Doll, H., Brinkmann, W. 173, 86 Revisited mass-loss rates for the nuclei of the planetary nebulae NGC 6210, NGC 6826 and NGC 6543: the first order moment W_1 of subordinate line profiles

Hutsemékers, D., Surdej, J. 173, 101

Changes of surface chemistry for standard massive star evolution: Cartography in the HR diagram

Maeder, A. 173, 247

CO observations of IRAS Circular No.9 sources 19520+2759 and 01133+6434: regions of star formation

Arquilla, R., Kwok, S. 173, 271

Radiation driven winds of hot luminous stars. II. Wind models for O-stars in the Magellanic Clouds

Kudritzki, R.P., Pauldrach, A., Puls, J. 173, 293

The detection of a circumstellar shell around P Cygni by direct CCD imaging

Leitherer, C., Zickgraf, F.-J. 174, 103

Line formation in the winds of Herbig Ae/Be stars. The Hα line Catala, C., Kunasz, P.B. 174, 158

Computed He II spectra for Wolf-Rayet stars: a grid of models Hamann, W.-R., Schmutz, W. 174, 173

Influence of stellar evolution on the evolution of planetary nebulae. I. Numerical method and hydrodynamical structures Schmidt-Voigt, M., Köppen, J. 174, 211

Influence of stellar evolution on the evolution of planetary nebulae. II. Confrontation of models with observations Schmidt-Voigt, M., Köppen, J. 174, 223

Self-energy losses in the binary pulsar PSR 1913+16 Spyrou, N. 174, 355

Erratum: Influence of abundances on mass-loss determination for WC stars

van der Hucht, K.A., Cassinelli, J.P., Williams, P.M. 175, 356

Detection of neutral hydrogen in the planetary nebula IC 418 Taylor, A.R., Pottasch, S.R. 176, L5

The peculiar early-type emission line supergiant S 18/SMC: an optical and ultraviolet study

Shore, S.N., Sanduleak, N., Allen, D.A. 176, 59

IRAS observations of Be stars. I. Statistical study of the IR excess of 101 Be stars

Coté, J., Waters, L.B.F.M. 176, 93

Evolution of the periodicity of the W UMa system ε CrA Manfroid, J., Heck, A., Lunel, M., Bergeat, J. 176, 180

The formation of radiation-driven winds in bursting neutron stars: non-LTE models

Yahel, R.Z., Brinkmann, W., Braun, A. 176, 223

Numerical studies of wind accretion

Anzer, U., Börner, G., Monaghan, J.J. 176, 235

Dust formation in stellar winds. V. The minimum mass loss rate for dust-driven winds

Gail, H.-P., Sedlmayr, E. 177, 186

RS Indi: UBV light curves and period study

Cerruti, M.A., Marton, S., Grieco, A., Lapasset, E., Sistero, R.F., Claria, J.J. 177, 350; 68, 351

Pulsational long-term behaviour of the cool oxygen-rich Mira variables R Leonis. I. The data

Hoeppe, G.R. 177, 351; 68, 419

Pulsational long-term behaviour of the cool oxygen-rich Mira variable R Leonis. II. Results and discussion

Hoeppe, G.R. 178, 131

A search for coronal line emission from early-type stars. I. ζ Puppis

Baade, D., Lucy, L.B. 178, 213

Reasons why nova FH Serpentis 1970 probably had a total luminosity above the Eddington limit during its outburst

Friedjung, M. 179, 164

Optical and radio astrometry of four late-type stars with maser emission

de Vegt, C., Kleine, T., Johnston, K.J., Bowers, P.F., Spencer, J.H. 179, 322

New CO and HCN sources associated with IRAS carbon stars Nguyen-Q-Rieu, Epchtein, N., Truong-Bach, Cohen, M. 180, 117

The formation of the principal system of novae Friedjung, M. 180, 155

Optical confirmation and high-resolution spectroscopy of the radio jet from the symbiotic star CH Cygni

Solf, J. 180, 207

Effects of dust on the formation of lines in an expanding spherical medium

Peraiah, A., Varghese, B.A., Rao, M.S. 180, 278; 69, 345

NGC 40: IUE observations of the nucleus Bianchi, L., Grewing, M. 181, 85

The peculiar emission-line supergiant HD 37836 Stahl, O., Wolf, B. 181, 293

The UV high resolution spectrum of A-type supergiants Talavera, A., Gomez de Castro, A.I. 181, 300

Structure and kinematics of stellar wind bubbles

Hanami, H., Sakashita, S. 181, 343

On the nature of 623+71: a cataclysmic binary surrounded by a bow-shock-like emission nebula

Krautter, J., Klaas, U., Radons, G. 181, 373

Vibrationally excited CS in IRC+10216

Turner, B.E. 182, L15

Long term variability of the far-UV high velocity components in γ Cas (1978–1986)

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N., Bourdonneau, B. 182, L25

A new approach to symbiotic stars

Nussbaumer, H., Vogel, M. 182, 51

Disk formation at the magnetosphere of wind-fed pulsars: application to Vela X-1

Börner, G., Hayakawa, S., Nagase, F., Anzer, U. 182, 63 Constraints for models of Be stars derived from UV and IRAS observations

Lamers, H.J.G.L.M., Waters, L.B.F.M. 182, 80

Infrared photometry of late-type Wolf-Rayet stars

Williams, P.M., van der Hucht, K.A., Thé, P.S. 182, 91

The relation between the visual polarisation and UV narrow absorption lines in irregular Be star variations

Brown, J.C., Henrichs, H.F. 182, 107

Rotational modulation of the wind of the PMS star AB Aur: new observations in CIV and MgII

Catala, C., Praderie, F., Felenbok, P. 182, 115

Grids of evolutionary models of massive stars with mass loss and overshooting. Properties of Wolf-Rayet stars sensitive to overshooting

Maeder, A., Meynet, G. 182, 243

The BVJK light curves of the short-period eclipsing binary CG Cygni

Bedford, D.K., Fuensalida, J.J., Arévalo, M.J. 182, 264 CO (J= 1–0) observations of bright carbon stars

Olofsson, H., Eriksson, K., Gustafsson, B. 183, L13

Detection of vibrationally excited SiS in IRC+10216 Turner, B.E. 183, L23 The unusual radio outburst of Nova Vulpeculae 1984 No. 2

Taylor, A.R., Seaquist, E.R., Hollis, J.M., Pottasch, S.R. 183, 38

Winds in collision. III. Modeling the interaction nebulae of eruptive symbiotics

Girard, T., Willson, L.A. 183, 247

Radiation driven winds of hot luminous stars. III. Detailed statistical equilibrium calculations for hydrogen to zinc

Pauldrach, A. 183, 295

Mass-loss of globular cluster red giants. A semi-empirical estima-

Martinez Roger, C., Paez, E. 184, 155

A study of the massive O-type binary Iota Orionis

Stickland, D.J., Pike, C.D., Lloyd, C., Howarth, I.D. 184, 185 Radiation-driven winds of hot luminous stars. IV. The influence of multi-line effects

Puls, J. 184, 227

A study of UV spectra of ζ Aur/VV Cep stars. X. Mass-loss of α Sco A from high-resolution IUE spectra of α Sco B

Hagen, H.-J., Hempe, K., Reimers, D. 184, 256

The kinematic structure of the HH 24 complex derived from high-resolution spectroscopy

Solf, J. 184, 322

Photometry and spectroscopy of the O-type variable HD 167971 Leitherer, C., Forbes, D., Gilmore, A.C., Hearnshaw, J., Klare, G., Krautter, J., Mandel, H., Stahl, O., Strupat, W., Wolf, B., Zickgraf, F.-J., Zirbel, E. 185, 121

IRAS observations of Be stars. II. Far-IR characteristics and mass loss rates

Waters, L.B.F.M., Coté, J., Lamers, H.J.G.L.M. 185, 206
Models for stellar coronae: thin coronae with radiative forces
Hearn. A.G. 185, 247

Kinematic structure of OH/IR stars

Sun, J., Kwok, S. 185, 258

Dust shells around Miras and OH/IR stars: interpretation of IRAS and other infrared measurements

Bedjin, P.J. 186, 136

Episodic mass loss in late-type stars due to acoustic wave packets

Cuntz, M. 188, L5

The initial-final mass relation: galactic disk and Magellanic Clouds

Weidemann, V. 188, 74

Singly ionized iron as a diagnostic of stellar envelopes. I. The methods

Friedjung, M., Muratorio, G. 188, 100

Models for the wind of the central star of NGC 6543 Lucy, L.B., Perinotto, M. 188, 125

Stars: mass of

Studies of early-type variable stars. IV. The orbit and physical dimensions for V $373\,\mathrm{Cas}$

Hill, G., Fisher W.A. 171, 123

Photoelectric radial velocities of eclipsing binaries. III. Orbital elements of AN Cam (Text in French)

Imbert, M. 173, 218; 67, 161

Absolute dimensions of eclipsing binaries. X. V 1143 Cygni Andersen, J., Garcia, J.M., Giménez, A., Nordström, B. 174, 107

Absolute dimensions of eclipsing binaries. XII. TZ Mensae Andersen, J., Clausen, J.V., Nordström, B. 175, 60

Photoelectric radial velocities of eclipsing binaries. IV. Orbital elements of BW Aqr (Text in French)

Imbert, M. 180, 278; 69, 397

Evolutionary models for R CrB stars

Weiss, A. 185, 165

Linear nonadiabatic pulsations of R CrB models

Weiss, A. 185, 178

Photoelectric radial velocities of eclipsing binaries. V. Orbital elements of V 643 Ori

Imbert, M. 186, 363; 71, 69

Stars: Mira; see Stars: long-period variables

Stars: neutron

Why is the rapid burster different from all other galactic-bulge X-ray sources?

Milgrom, M. 172, L1

Constraints on the mass-radius relation for the neutron star in the X-ray burst source 4U/MXB 1820-30 located in the globular cluster NGC 6624

van Paradijs, J., Lewin, W.H.G. 172, L20

The origin of OPO sources

Isern, J., Hernanz, M., Canal, R., Labay, J., Mochkovitch, R. 172, L23

The 35 day cycle of Her X-1: quality of the clock mechanism \ddot{O} gelman, H. 172, 79

Phase transitions in stellar cores. II. Equilibrium configurations in general relativity

Zdunik, J.L., Haensel, P., Schaeffer, R. 172, 95

Neutron star spin evolution in wide low-mass X-ray binaries de Kool, M., van Paradijs, J. 173, 279

The formation of radiation-driven winds in bursting neutron stars; non-LTE models

Yahel, R.Z., Brinkmann, W., Braun, A. 176, 223

Are the galactic-bulge X-ray sources magnetized?

Kundt, W., Özel, M.E., Ercan, E.N. 177, 163

Mean free paths of non-degenerate neutrinos in neutron star matter

Haensel, P., Jerzak, A.J. 179, 127

The harmonic structure of the February 23.316 neutrino burst from the Supernova 1987 A

Ögelman, H., Buccheri, R. 180, L23

Disc accretion by magnetized neutron stars: a reassessment of the torque

Wang, Y.-M. 183, 257

The disruption of a light neutron star in an ultraclose binary and the second neutrino burst from SN 1987 A

Stella, L., Treves, A. 185, L5

CCD photometry of V 926 Sco, the optical counterpart of the X-ray burst source 4U/MXB 1735-44

van Amerongen, S., Pedersen, H., van Paradijs, J. 185, 147

Hard spectral components in soft X-ray transients

King, A.R., Lasota, J.P. 185, 155

Neutron star precession and the dynamics of the superfluid interior

Alpar, A., Ögelman, H. 185, 196

Soft X-ray imaging observations of the 39 millisecond pulsar PSR 1951 + 32

Ögelman, H., Buccheri, R. 186, L17

A classification of fast quasi-periodic X-ray oscillators: Is 6 Hz a fundamental frequency?

Hasinger, G. 186, 153

Stars: novae

Two-dimensional numerical models of the boundary layer of accretion disks in cataclysmic variables

Kley, W., Hensler, G. 172, 124

Spectroscopy of the primary and secondary components of the dwarf nova AH Herculis

Bruch. A. 172, 187

Further observations of PW Vulpeculae

Andrillat, Y., Houziaux, L. 173, 217; 67, 111

EXO 023432-5232.3: a new 114-minute probable AM-Herculistype binary

Beuermann, K., Thomas, H.C., Giommi, P., Tagliaferri, G. 175, L9

The viscosity-surface density relation and implications for the early rise of dwarf novae outbursts

Meyer-Hofmeister, E. 175, 113

A compilation of distances to cataclysmic variable stars Berriman, G. 176, 189; 68, 41

EXOSAT observations of X-rays from classical novae during the outburst stage

Ögelman, H., Krautter, J., Beuermann, K. 177, 110

Spectroscopic and photometric studies of the symbiotic star AG Dra

Iijima, T., Vittone, A., Chochol, D. 178, 203

Reasons why nova FH Serpentis 1970 probably had a total luminosity above the Eddington limit during its outburst

Friedjung, M. 179, 164

The formation of the principal system of novae

Friedjung, M. 180, 155

Simultaneous multicolour photometry of OY Carinae during quiescence

Schoembs, R., Dreier, H., Barwig, H. 181, 50

On the nature of 623+71: a cataclysmic binary surrounded by a bow-shock-like emission nebula

Krautter, J., Klaas, U., Radons, G. 181, 373

Discovery of soft X-ray oscillations in VW Hydri

van der Woerd, H., Heise, J., Paerels, F., Beuermann, K., van der Klis, M., Motch, C., van Paradijs, J. 182, 219

A new, distant dwarf nova: 2138-453

Hawkins, M.R.S., Véron, P. 182, 271 UBV photometry of novae

van den Bergh, S., Younger, P.F. 182, 362; 70, 125

X-ray and UV observations of ω Centauri with EXOSAT Koch-Miramond, L., Aurière, M. 183, 1

The unusual radio outburst of Nova Vulpeculae 1984 No. 2 Taylor, A.R., Seaquist, E.R., Hollis, J.M., Pottasch, S.R. 183,

38
The 67-min X-ray period of EX Hydrae observed with the EIN-

STEIN observatory
Heise, J., Mewe, R., Kruszewski, A., Chlebowski, T. 183, 73

The classification of planetary nebulae

Faundez-Abans, M., Maciel, W.J. 183, 324

The reclassification of the supposed dwarf nova V 1285 Cygni as a semiregular variable

Bruch, A., Aniol, R., Cunow, B. 185, 203

Catalogue of cataclysmic binaries, low-mass X-ray binaries and related objects (fourth edition)

Ritter, H. 185, 355; 70, 335

An atlas and catalogue of northern dwarf novae

Bruch, A., Fischer, F.-J., Wilmsen, U. 185, 357; 70, 481

The anomalous ultraviolet spectrum of the AM Her star H 0538+608

Bonnet-Bidaud, J.M., Mouchet, M. 188, 89

Ultraviolet observations of cataclysmic variables: the IUE archive

Verbunt, F. 188, 268; 71, 339

Su

Stars: OH/IR

Interferometric observations of the H₂O and OH maser emission from S Persei

Diamond, P.J., Johnston, K.J., Chapman, J.M., Lane, A.P., Bowers, P.F., Spencer, J.H., Booth, R.S. 174, 95

Two new OH emitting planetary nebulae

Pottasch, S.R., Bignell, C., Zijlstra, A. 177, L49

Optical and infrared observations of two type-II OH/IR sources Le Bertre, T. 180, 160

Kinematic structure of OH/IR stars

Sun, J., Kwok, S. 185, 258

Dust shells around Miras and OH/IR stars: interpretation of IRAS and other infrared measurements

Bedjin, P.J. 186, 136

Stars: oscillations of

The Fourier coefficients derived from the decomposition of pulsating star light curves

Antonello, E., Broglia, P., Conconi, P., Mantegazza, L. 171, 131

Photoelectric study of HD 96008: a close binary system or a new pulsating star?

Lampens, P. 172, 173

Computed spectral line variations of oblique non-radial pulsa-

Baade, D., Weiss, W.W. 173, 217; 67, 147

A new pulsating DA white dwarf: PG 2303+243

Vauclair, G., Chevreton, M., Dolez, N. 175, L13

Forced oscillations in a rotating star: low frequency gravity modes

Rocca, A. 175, 81

Multiple close frequencies of the Delta Scuti star θ^2 Tau

Breger, M., Huang Lin, Jiang Shi-yang, Guo Zi-he, Antonello, E., Mantegazza, L. 175, 117

Influence of the perturbation of the Reynold tensor on the stability of the solar 5-minute oscillations

Gabriel, M. 175, 125

Searches for pulsed emission: improved determination of period and amplitude from epoch folding for sinusoidal signals

Leahy, D.A. 180, 275

Hydrodynamic models for the short-period, classical Cepheid, SU Cas

Aikawa, T., Antonello, E., Simon, N.R. 181, 25

HD 37819 \equiv V 356 Aur, a double-mode δ Sct star with an unusual period ratio

Poretti, E., Mantegazza, L., Antonello, E. 181, 273

An upper limit on p-mode amplitudes in β Hyi

Frandsen, S. 181, 289

The rapidly oscillating Ap stars as a test of stellar chromospheric heating mechanisms

Shore, S.N., Brown, D.N., Sonneborn, G., Gibson, D.M. 182, 285

Evidence for no short time scale photometric variations in the Bp-Si star HD 92664

Mégessier, C., North, P. 183, 187; 70, 247

A study of the efficiency of some inversion techniques applied to a simple model of the Moon

Ibrahim Denis, A. 184, 373

The modulation of neutrinos from SN 1987 A during stellar collapse

de Jager, O.C. 185, L13

Linear nonadiabatic pulsations of R CrB models

Weiss, A. 185, 178

A classification of fast quasi-periodic X-ray oscillators: Is 6 Hz a fundamental frequency?

Hasinger, G. 186, 153

Theoretical expressions for evolutionary period changes in nonradially pulsating stars

Bruggen, P., Smeyers, P. 186, 170

Stars: peculiar A

Li 1-resonance-doublet observations and the abundance of lithium in Am and δ Del stars

Burkhart, C., Coupry, M.F., Lunel, M., van' t Veer, C. 172, 257

Computed spectral line variations of oblique non-radial pulsators

Baade, D., Weiss, W.W. 173, 217; 67, 147

Infrared properties of CP stars

Kroll, R., Schneider, H., Catalano, F.A., Voigt, H.H. 173, 416; 67, 195

An analysis of the manganese star HD 78316 (κ Cnc)

Zöchling, J., Muthsam, H. 176, 75

Photoelectric search for CP 2-stars in open clusters. IX. Pleiades and Coma Berenices. The case of Pleione

Maitzen, H.M., Pavlovski, K. 178, 313

Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 180, 278; 69, 371

IRAS observations of CP stars

Kroll, R. 181, 315

Silicon absorption in UV spectra of ApSi stars

Artru, M.-C., Lanz, T. 182, 273

The rapidly oscillating Ap stars as a test of stellar chromospheric heating mechanisms

Shore, S.N., Brown, D.N., Sonneborn, G., Gibson, D.M. 182, 285

Photometric variability of some CP stars

Heck, A., Mathys, G., Manfroid, J. 182, 360; 70, 33

Optical region elemental abundance analyses of B and A stars. VII. The metallic-lined star 32 Aquarii

Kocer, D., Bolcal, C., Inelmen, E., Adelman, S.J. 182, 360; 70, 49

Evidence for no short time scale photometric variations in the Bp-Si star HD 92664

Mégessier, C., North, P. 183, 187; 70, 247

IUE observations of the broad continuum feature at 1400 $\hbox{\normalfont\AA}$ in the silicon and related stars

Shore, S.N., Brown, D.N. 184, 219

Line-blanketed model atmospheres of Ap-stars. VI. HD 221568 Stepień, K., Muthsam, H. 185, 225

Erratum: Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 185, 358; 70, 141

The diffusion of gallium in main-sequence peculiar stars Alecian, G., Artru, M.-C. 186, 223

Strömgren photometry of open clusters. II. NGC3532

Schneider, H. 186, 365; 71, 147

Photoelectric search for CP2-stars in open clusters. X. NGC 2232, NGC 2343, Cr 140, and Tr 10

Jenkner, H., Maitzen, H.M. 188, 266; 71, 255

Photoelectric search for CP2-stars in open clusters. XI. NGC 3532 and NGC 5662

Maitzen, H.M., Schneider, H. 188, 270; 71, 431

Photoelectric search for CP2-stars in open clusters. XII. Alpha Persei, Praesepe and NGC 7243

Maitzen, H.M., Pavlovski, K. 188, 271; 71, 441

Strömgren photometry of open clusters. III. NGC2323, NGC5662

Schneider, H. 188, 272; 71, 531

Stars: Population I

The origin of the different Wolf-Rayet subtypes Langer, N. 171, L1

Optical region elemental abundance analyses of B and A stars. VI. The normal stars HR 6559 (A7 IV) and η Leporis (F0 IV)

Adelman, S.J. 173, 420; 67, 353

Mass function of stars in the solar neighbourhood Rana, N.C. 184, 104

Stars: Population II

Empirical colour-metallicity relations for Population II giant stars

Martinez Roger, C. 171, 77

Lithium abundance in two extreme high-velocity metal-poor halo dwarfs

Spite, M., Spite, F., Peterson, R.C., Chaffee, F.H., Jr. 172, L9

The lithium abundance in the extremely metal-deficient dwarf G 64-12

Rebolo, R., Beckman, J., Molaro, P. 172, L17

A photoelectric UBV sequence in SA 184

Ardeberg, A., Lindgren, H. 173, 216; 67, 103

M62: a link between M13-like and Oosterhoff I globular clusters

Caloi, V., Castellani, V., Piccolo, F. 173, 416; 67, 181

CCD photometry in globular clusters. II. NGC 7492

Buonanno, R., Corsi, C.E., Ferraro, I., Fusi Pecci, F. 173, 419; 67, 327

Search for (globular) clusters in M31. IV. Candidates in a $3^{\circ} \times 3^{\circ}$ square field centred on M31

Battistini, P., Bònoli, F., Braccesi, A., Federici, L., Fusi Pecci, F., Marano, B., Börngen, F. 175, 358; 67, 447

IRAS 09371+1212: an icy evolved, mass-losing star with a unique IR spectrum

Forveille, T., Morris, M., Omont, A., Likkel, L. 176, L13
Determination of the sulphur abundance in metal-deficient dwarf stars

François, P. 176, 294

Application of the infrared flux method to globular cluster stars. The M 3 giant branch

Arribas, S., Martinez Roger, C. 178, 106

Magnesium isotopes in metal-poor and metal-rich stars Barbuy, B., Spite, F., Spite, M. 178, 199

Spectroscopic and photometric studies of the symbiotic star AG

Iijima, T., Vittone, A., Chochol, D. 178, 203

Abundances of light elements in halo dwarfs: a re-analysis Magain, P. 179, 176

The missing opacity and the temperature calibration of solar-type stars

Magain, P. 181, 323

The galactic globular cluster system: calibration of the ratio R = N(HB)/N(RGB)

Caputo, F., Martinez Roger, C., Paez, E. 183, 228

Upper limit to the boron abundance in the Population II star HD 140283

Molaro, P. 183, 241

Physical parameters for Population II stars

Cacciari, C., Malagnini, M.L., Morossi, C., Rossi, I. 183, 314

Mass-loss of globular cluster red giants. A semi-empirical estimation

Martinez Roger, C., Paez, E. 184, 155

Near-infrared photometry of globular clusters in the outer halo of M 31

Bònoli, F., Delpino, F., Federici, L., Fusi Pecci, F. 185, 25

Infrared observations of metal-deficient stars

Arribas, S., Martinez Roger, C. 185, 354; 70, 303

Orbital elements for double stars of Population II. The high-velocity system COD-48° 1741

Lindgren, H., Ardeberg, A., Zuiderwijk, E. 188, 39

Stars: Population III

Relation between mass and central temperature in supermassive stars

Mitalas, R., Manuel, P.W. 173, 244

Stars: pre-main-sequence

T Tauri stars and dust clouds in a region of the Gum nebula Pettersson, B. 171, 101

CCD observations of jets from young stars Ray, T.P. 171, 145

Accretion-driven jets from young stars

Kaburaki, O., Itoh, M. 172, 191

IR reflection nebulae near molecular outflow sources Lenzen, R. 173, 124

H₂O maser emission from stars in the IRAS point-source catalog

Zuckerman, B., Lo, K.Y. 173, 263

Line formation in the winds of Herbig Ae/Be stars. The Hα line Catala, C., Kunasz, P.B. 174, 158

Herbig-Haro emission in two bipolar reflection nebulae Neckel, T., Staude, H.J., Sarcander, M., Birkle, K. 175, 231

VBLUW observations of Pleiades G and K dwarfs

Van Leeuwen, F., Alphenaar, P., Meys, J.J.M. 175, 359; 67, 483

New detections of probable massive pre-main sequence stars in the southern galactic plane

Braz, M.A., Epchtein, N. 176, 245

High angular resolution CO mapping of the high velocity gas associated with HL/XZ Tau and V 645 Cygni (GL 2789)

Torrelles, J.M., Anglada, G., Rodríguez, L.F., Cantò, J., Barral, J.F. 177, 171

Interstellar extinction and polarimetric properties of the star HD 200775

Pfau, W., Piirola, V., Reimann, H.-G. 179, 134

Serpens - SVS 20: a new young infrared double source

Eiroa, C., Lenzen, R., Leinert, C., Hodapp, K.-W. 179, 171

The spatial distribution and spectral evolution of IRAS point sources around dense molecular clouds

Clark, F.O. 180, L1

Low-mass star formation in the high galactic latitude dark cloud I 1642

Sandell, G., Reipurth, B., Gahm, G. 181, 283

Z CMa resolved at near infrared wavelengths: one more piece to the puzzle

Leinert, Ch., Haas, M. 182, L47

Rotational modulation of the wind of the PMS star AB Aur: new observations in CJV and MgII

Catala, C., Praderie, F., Felenbok, P. 182, 115

Molecular hydrogen emission in Herbig-Haro complexes. II. The high latitude nebulosities HH 52/53/54

Sandell, G., Zealey, W.J., Williams, P.M., Taylor, K.N.R., Storey, J.M.V. 182, 237

The strange "spots" on the T Tauri star RY Lupi

Liseau, R., Lindroos, K.P., Fischerström, C. 183, 274

NLTE models for cocoon stars

Höflich, P., Wehrse, R. 185, 107

Water vapor masers associated with young visible stars

Rodriguez, L.F., Haschick, A.D., Torrelles, J.M., Myers, P.C. 186, 319

Speckle observations of the ice feature in the young double source Serpens SVS 20

Eiroa, C., Leinert, C. 188, 46

Stars: radio radiation of

Radio outbursts in HR 1099: quantitative analysis of flux spectrum and intensity distribution

Klein, K.-L., Chiuderi-Drago, F. 175, 179

Pulsar statistics

Stollman, G.M. 178, 143

A catalogue of stars emitting radio continuum

Wendker, H.J. 178, 324; 69, 87

Optical and radio astrometry of four late-type stars with maser emission

de Vegt, C., Kleine, T., Johnston, K.J., Bowers, P.F., Spencer, J.H. 179, 322

The extended radio emission of P Cygni

Baars, J.W.M., Wendker, H.J. 181, 210

Flux density and polarization observations of Hipparcos radio stars

Paredes, J.M., Estalella, R., Rius, A. 186, 177

Stars: rotation of

Measurements and study of rotational velocities in RS CVn star systems

Huisong, T., Xuefu, L. 172, 74

Measurements and study of rotational velocities in RS CVn star systems

Huisong, T., Xuefu, L. 172, 74

Forced oscillations in a rotating star: low frequency gravity modes

Rocca, A. 175, 81

Dynamical stability of differentially rotating bodies to non-axisymmetric perturbations

Fujimoto, M.Y. 176, 53

Magnetic structure in cool stars. XII. Chromospheric activity and rotation of giants and dwarfs

Rutten, R.G.M. 177, 131

Magnetic structure in cool stars. XIV. Deficiency in chromospheric fluxes from M-type dwarfs

Schrijver, C.J., Rutten, R.G.M. 177, 143

Magnetic structure in cool stars. XIII. Appropriate units for the rotation-activity relation

Rutten, R.G.M., Schrijver, C.J. 177, 155

A rotational modulation effect in the flare frequency on EV Lac Doyle, J.G. 177, 201

Evidences for a bifurcation in massive star evolution. The ONblue stragglers

Maeder, A. 178, 159

A sufficient condition for stability of a rotating body Hanawa, T. 179, 383

Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 180, 278; 69, 371

Discovery of soft X-ray oscillations in VW Hydri

van der Woerd, H., Heise, J., Paerels, F., Beuermann, K., van der Klis, M., Motch, C., van Paradijs, J. 182, 219

The rapidly rotating spotted red dwarf flare star Gliese 890

Pettersen, B.R., Lambert, D.L., Tomkin, J., Sandmann, W.H., Lin, H. 183, 66

Disc accretion by magnetized neutron stars: a reassessment of the torque

Wang, Y.-M. 183, 257

The strange "spots" on the T Tauri star RY Lupi

Liseau, R., Lindroos, K.P., Fischerström, C. 183, 274

Neutron star precession and the dynamics of the superfluid interior

Alpar, A., Ögelman, H. 185, 196

Erratum: Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 185, 358; 70, 141

Stars: RR Lyr

The Fourier coefficients derived from the decomposition of pulsating star light curves

Antonello, E., Broglia, P., Conconi, P., Mantegazza, L. 171, 131

Observational tests for stellar evolution and pulsation theory. I. The globular clusters M4 and M15

Caputo, F. 172, 67

The galactic globular cluster system: constraints from Synthetic Horizontal Branches

Caputo, F., De Stefanis, P., Paez, E., Quarta, M.L. 176, 192; 68, 119

The Baade-Wesselink method applied to field RR Lyrae stars. I. UVBRI photoelectric and radial velocity data

Cacciari, C., Clementini, G., Prévot, L., Lindgren, H., Lolli, M., Oculi, L. 178, 325; 69, 135

The Oosterhoff dichotomy revisited. I. The ranking of RR Lyrae periods versus metallicity

Castellani, V., Quarta, M.L. 186, 361; 71, 1

Stars: runaway

Non-LTE abundance analysis of the early-type high galactic latitude star HD 100340 $\,$

Keenan, F.P., Brown, P.J.F., Conlon, E.S., Dufton, P.L., Lennon, D.J. 178, 194

An evolutionary scenario for the formation of highly eccentric Be/X-ray binaries

Habets, G.M.H.J. 184, 209

Stars: structure of

The origin of the different Wolf-Rayet subtypes Langer, N. 171, L1

Measurement of lithium abundance in dwarf stars of M 67 Spite, F., Spite, M., Peterson, R.C., Chaffee, F.H., Jr. 171, L8

Contact binary models with dissipative heating

Matraka, B. 171, 95

Studies of early-type variable stars. IV. The orbit and physical dimensions for V 373 Cas $\,$

Hill, G., Fisher W.A. 171, 123

Contact binaries. III. A survey of the equilibrium solutions and their stability

Kähler, H., Matraka, B., Weigert, A. 172, 179

Approximate analytical solutions of the Lane-Emden equation in N-dimensional space

Horedt, G.P. 172, 359

Absolute dimensions of eclipsing binaries. XII. TZ Mensae Andersen, J., Clausen, J.V., Nordström, B. 175, 60

Topology of the Lane-Emden equation

Horedt, G.P. 177, 117

Gray's constant and "swiss cheese" and "sea serpents" in stellar convection zones

Belvedere, G., Pidatella, R.M., Stix, M. 177, 183

The evolution of helium stars in the mass range 2.0 to 4.0 M_{\odot} : the evolutionary program

Habets, G.M.H.J. 178, 326; 69, 183

Studies in stellar evolution. III. The internal structure constants Hejlesen, P.M. 178, 326; 69, 249

An evolutionary scenario for the formation of highly eccentric Be/X-ray binaries

Habets, G.M.H.J. 184, 209

A study of the efficiency of some inversion techniques applied to a simple model of the Moon

Ibrahim Denis, A. 184, 373

Roxburgh's criterion for convective overshooting Baker, N.H., Kuhfuβ, R. 185, 117

Some embarrassments in current treatments of convective overshooting

Renzini, A. 188, 49

Stars: subdwarf

Have circumstellar envelopes been detected around nearby M-dwarfs?

Mariotti, J.-M., Perrier, C., Lacombe, F. 182, L11

Infrared observations of metal-deficient stars

Arribas, S., Martinez Roger, C. 185, 354; 70, 303

Orbital elements for double stars of Population II. The highvelocity system COD-48° 1741

Lindgren, H., Ardeberg, A., Zuiderwijk, E. 188, 39

Stars: supergiant

Interferometric observations of the H₂O and OH maser emission from S Persei

Diamond, P.J., Johnston, K.J., Chapman, J.M., Lane, A.P., Bowers, P.F., Spencer, J.H., Booth, R.S. 174, 95

Radial velocities of southern stars obtained with the photoelectric scanner CORAVEL. VI. 233 F to M type stars in and near the Small Magellanic Cloud. Comparison with 80 spectrographic radial velocities of O to K type stars in this Galaxy

Maurice, E., Andersen, J., Ardeberg, A., Bardin, C., Imbert, M., Lindgren, H., Martin, N., Mayor, M., Nordström, B., Prévot, L., Rebeirot, E., Rousseau, J. 175, 358; 67, 423

Astrometry of SN 1987 A and Sanduleak -69 202

West, R.M., Lauberts, A., Jørgensen, H.E., Schuster, H.-E. 177, L1

Small Magellanic Cloud: $H\gamma$ -line equivalent widths and luminosity classes of the brightest blue star members

Azzopardi, M. 180, 279; 69, 421

Polarization investigations in four peculiar supergiants with high IR excess

Joshi, U.C., Deshpande, M.R., Sen, A.K., Kulshrestha, A. 181, 31

The peculiar emission-line supergiant HD 37836 Stahl, O., Wolf, B. 181, 293

The UV high resolution spectrum of A-type supergiants Talavera, A., Gomez de Castro, A.I. 181, 300

Direct imagery of circumstellar shells around Ofpe/WN9 stars in the galaxy and in the LMC

Stahl, O. 182, 229

A study of UV spectra of ζ Aur/VV Cep stars. X. Mass-loss of α Sco A from high-resolution IUE spectra of α Sco B

Hagen, H.-J., Hempe, K., Reimers, D. 184, 256

Microturbulence in the upper photosphere of α Persei (F5 Ib) derived from ultraviolet spectral observations

Spaan, F.H.P., de Jager, C., Nieuwenhuijzen, H., Kondo, Y. 185, 229

Models for stellar coronae: thin coronae with radiative forces Hearn, A.G. 185, 247

Photometry and spectroscopy of stars in the region of a highly reddened cluster in Ara

Westerlund, B.E. 185, 354; 70, 311

Model study of wavelength-dependent limb-darkening and radii of M-type giants and supergiants

Scholz, M., Takeda, Y. 186, 200

A model for the intrinsic linear polarization of cool giant and supergiant stars

Marcondes-Machado, J.A. 188, 131

Stars: supernovae; see Supernovae and supernova remnants

Stars: T Tau; see Stars: pre-main-sequence

Stars: temperatures of

A new determination of the statistical relations between stellar spectral and luminosity classes and stellar effective temperature and luminosity

de Jager, C., Nieuwenhuijzen, H. 177, 217

Application of the infrared flux method to globular cluster stars. The M3 giant branch

Arribas, S., Martinez Roger, C. 178, 106

Spectrophotometry of eight bright Be stars Goraya, P.S., Gurm, H.S. 180, 167

NGC 40: IUE observations of the nucleus

Bianchi, L., Grewing, M. 181, 85

The wings of the calcium infrared triplet lines in solar-type stars Smith, G., Drake, J.J. 181, 103

The missing opacity and the temperature calibration of solar-type stars

Magain, P. 181, 323

Physical parameters for Population II stars

Cacciari, C., Malagnini, M.L., Morossi, C., Rossi, I. 183, 314 The nature of the F str λ 4077 stars

North, P. 186, 191

Accurate angular diameters and effective temperatures for eleven giants cooler than K0 by Michelson interferometry

Di Benedetto, G.P., Rabbia, Y. 188, 114

Stars: variable

Studies of early-type variable stars. IV. The orbit and physical dimensions for V 373 Cas

Hill, G., Fisher W.A. 171, 123

Four-colour photometry of eclipsing binaries.

XXVI A. RY Aqr: a low-mass semidetached system with intrinsic variability

Helt, B.E. 172, 155

Far-UV variability of θ Cr B in 1985–86: a progression toward

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N. 173, L8 High-resolution emission-line spectroscopy of Be stars. II. Fe II and other weak emission lines

Hanuschik, R.W. 173, 299

Spectral energy distributions of Be stars. I. Measurements of 26 southern and equatorial stars

Kaiser, D. 173, 416; 67, 203

Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii Butler, C.J., Doyle, J.G., Andrews, A.D., Byrne, P.B., Linsky, J.L., Bornmann, P.L., Rodonò, M., Pazzani, V., Simon, T. 174, 139

A new pulsating DA white dwarf: PG 2303+243 Vauclair, G., Chevreton, M., Dolez, N. 175, L13

Multiple close frequencies of the Delta Scuti star θ^2 Tau

Breger, M., Huang Lin, Jiang Shi-yang, Guo Zi-he, Antonello, E., Mantegazza, L. 175, 117

The ultraviolet spectrum of the peculiar emission-line star GG Carinae

Brandi, E., Gosset, E., Swings, J.-P. 175, 151

Radio outbursts in HR 1099: quantitative analysis of flux spectrum and intensity distribution

Klein, K.-L., Chiuderi-Drago, F. 175, 179

Five-colour (UBVRI) photopolarimetry of FK Comae and HD 199178

Huovelin, J., Piirola, V., Vilhu, O., Efimov, Y.S., Shakhovskoy, N.M. 176, 83

Evolution of the periodicity of the W UMa system ε CrA Manfroid, J., Heck, A., Lunel, M., Bergeat, J. 176, 180

Studies of Cepheid-type variability. V. The Fourier phases of Type II Cepheids with periods of 1-3 days

Petersen, J.O., Andreasen, G.K. 176, 183

A compilation of distances to cataclysmic variable stars Berriman, G. 176, 189; 68, 41

Four-colour photometry of eclipsing binaries. XXVI B. Light curves of RY Aqr

Helt, B.E. 176, 193; 68, 187

The ultraviolet spectrum of the peculiar emission-line star GG Carinae: the line identifications

Brandi, E., Gosset, E. 176, 194; 68, 283

Short-period variations in i Herculis

Chapellier, E., Le Contel, J.M., Valtier, J.C., Gonzalez-Bedolla, S., Ducatel, D., Morel, P.J., Sareyan, J.P., Geiger, I., Antonelli, P. 176, 255

Rotational modulation and flares on RS CVn and BY Dra stars. III. IUE observations of V 711 Tau (= HR 1099), II Peg, and AR

Rodonò, M., Byrne, P.B., Neff, J.E., Linsky, J.L., Simon, T., Butler, C.J., Catalano, S., Cutispoto, G., Doyle, J.G., Andrews, A.D., Gibson, D.M. 176, 267

The light curve of BW Vulpeculae

Sterken, C., Young, A., Furenlid, I. 177, 150

Pulsational long-term behaviour of the cool oxygen-rich Mira variables R Leonis. I. The data

Hoeppe, G.R. 177, 351; 68, 419

Pulsational long-term behaviour of the cool oxygen-rich Mira variable R Leonis. II. Results and discussion

Hoeppe, G.R. 178, 131

The possible appearance of a second period in the WN 5 star EZ Canis Majoris

Gosset, E., Vreux, J.-M. 178, 153

The Baade-Wesselink method applied to field RR Lyrae stars. I. UVBRI photoelectric and radial velocity data

Cacciari, C., Clementini, G., Prévot, L., Lindgren, H., Lolli, M., Oculi, L. 178, 325; 69, 135

uvby photometry of southern B- and A-stars

van der Linden, D., Sterken, C. 178, 325; 69, 157

The nature of the exciting star of RCW 34

Vittone, A.A., de Martino, D., Giovannelli, F., Rossi, C. 179, 157

HD 151932 variability revisited

Vreux, J.M., Magain, P., Manfroid, J., Scuflaire, R. 180, L17 Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 180, 278; 69, 371

New observations and frequency analysis of the β Cephei star τ^1

Cuypers, J. 180, 280; 69, 445

The short-period photometric variability of four Be stars Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J. 181, 11; 71, 11

Discovery of 2-3 s quasi-periodic oscillations in EF Eri Larsson, S. 181, L15

Simultaneous multicolour photometry of OY Carinae during quiescence

Schoembs, R., Dreier, H., Barwig, H. 181, 50

HD 37819 \equiv V 356 Aur, a double-mode δ Sct star with an unusual period ratio

Poretti, E., Mantegazza, L., Antonello, E. 181, 273

The peculiar emission-line supergiant HD 37836

Stahl, O., Wolf, B. 181, 293

Long term variability of the far-UV high velocity components in y Cas (1978-1986)

Doazan, V., Rusconi, L., Sedmak, G., Thomas, R.N., Bourdonneau, B. 182, L25

Discovery of soft X-ray oscillations in VW Hydri

van der Woerd, H., Heise, J., Paerels, F., Beuermann, K., van der Klis, M., Motch, C., van Paradijs, J. 182, 219

The BVJK light curves of the short-period eclipsing binary CG

Bedford, D.K., Fuensalida, J.J., Arévalo, M.J. 182, 264

A new, distant dwarf nova: 2138-453

Hawkins, M.R.S., Véron, P. 182, 271

Photometric variability of some CP stars

Heck, A., Mathys, G., Manfroid, J. 182, 360; 70, 33 Long-term and mid-term spectroscopic variations of the Be-shell star HD 184279 (V1294 Aql). I. Observational data

Ballereau, D., Chauville, J. 183, 186; 70, 229

The strange "spots" on the T Tauri star RY Lupi

Liseau, R., Lindroos, K.P., Fischerström, C. 183, 274

Photometry and spectroscopy of the eclipsing P Cygni star R 81 in the Large Magellanic Cloud

Stahl, O., Wolf, B., Zickgraf, F.-J. 184, 193

The variable star HD 79889

Oja, T. 184, 215

A high precision photometric investigation of the micro-variations of Wolf-Rayet stars

van Genderen, A.M., van der Hucht, K.A., Steemers, W.J.G. 185, 131

Evolutionary models for R CrB stars

Weiss, A. 185, 165

Linear nonadiabatic pulsations of R CrB models Weiss, A. 185, 178

The reclassification of the supposed dwarf nova V 1285 Cygni as a semiregular variable

Bruch, A., Aniol, R., Cunow, B. 185, 203

Expected number of new variable stars by TYCHO photometry with HIPPARCOS

Mauder, H., Høg, E. 185, 349

Catalogue of cataclysmic binaries, low-mass X-ray binaries and related objects (fourth edition)

Ritter, H. 185, 355; 70, 335

An atlas and catalogue of northern dwarf novae

Bruch, A., Fischer, F.-J., Wilmsen, U. 185, 357; 70, 481

Erratum: Photometric variability of Ap and He-weak stars in clusters and associations. II

North, P. 185, 358; 70, 141

The period of BW Vulpeculae

van der Linden, D., Sterken, C. 186, 129

Theoretical expressions for evolutionary period changes in nonradially pulsating stars

Bruggen, P., Smeyers, P. 186, 170

The short-period photometric variability of four Be stars Balona, L.A., Marang, F., Monderen, P., Reitermann, A., Zickgraf, F.-J. 186, 361; 71, 11

UBV photoelectric catalogue (1986). II. Analysis of the data Mermilliod, J.-C. 186, 364; 71, 119

Deep photometry of globular clusters. X. The cluster GIC0435-59 in Reticulum

Gratton, R.G., Ortolani, S. 186, 364; 71, 131

Fast transient X-rays from flare stars and RS CVn binaries Rao, A.R., Vahia, M.N. 188, 109

A $uvby\beta$ survey of northern-hemisphere active binaries. I. The observations

Reglero, V., Giménez, A., de Castro, E., Fernandez-Figueroa, M.J. 188, 270: 71, 421

Stars: white dwarf

The origin of QPO sources

Isern, J., Hernanz, M., Canal, R., Labay, J., Mochkovitch, R. 172, L23

Observations of magnetic hydrogen lines in the white dwarf GD 229

Östreicher, R., Seifert, W., Ruder, H. Wunner, G. 173, L15 Disappearance of periodic X-ray minima in AM Her

Priedhorsky, W., Marshall, F.J., Hearn, D.R. 173, 95

A photometric study of the bright cloud B in Sagittarius. V. 185 new proper motion stars

Terzan, A., Turati, C., Ounnas, C. 173, 419; 67, 309

EXO 023432-5232.3: a new 114-minute probable AM-Herculistype binary

Beuermann, K., Thomas, H.C., Giommi, P., Tagliaferri, G. 175, L9

A new pulsating DA white dwarf: PG 2303+243 Vauclair, G., Chevreton, M., Dolez, N. 175, L13

White dwarfs with metallic line spectra

Liebert, J., Wehrse, R., Green, R.F. 175, 173

EXOSAT observations of X-rays from classical novae during the outburst stage

Ögelman, H., Krautter, J., Beuermann, K. 177, 110

Synthetic spectra of cool, helium-rich white dwarfs with different metal abundances

Zeidler-K.T., E.-M. 177, 351; 68, 469

Discovery of 2-3 s quasi-periodic oscillations in EF Eri Larsson, S. 181, L15 Discovery of soft X-ray oscillations in VW Hydri

van der Woerd, H., Heise, J., Paerels, F., Beuermann, K., van der Klis, M., Motch, C., van Paradijs, J. **182**, 219

Discovery of a magnetic DA white dwarf with distinct H β and H α Zeeman triplets

Hagen, H.-J., Groote, D., Engels, D., Haug, U., Toussaint, F. 183, L7

The 67-min X-ray period of EX Hydrae observed with the EIN-STEIN observatory

Heise, J., Mewe, R., Kruszewski, A., Chlebowski, T. 183, 73

White dwarfs in Omega Centauri?

Ortolani, S., Rosino, L. 185, 102

EUV photometry of DA white dwarfs with EXOSAT

Jordan, S., Koester, D., Wulf-Mathies, C., Brunner, H. 185, 253

The initial-final mass relation: galactic disk and Magellanic Clouds

Weidemann, V. 188, 74

Stars: winds; see Stars: mass loss

Stars: Wolf-Rayet

The origin of the different Wolf-Rayet subtypes Langer, N. 171, L1

New evidence at X-ray and COS-B γ-ray frequencies for non-thermal phenomena in Wolf-Rayet stars

Pollock A.M.T. 171, 135

The stellar population in the Wolf-Rayet knot in NGC 5430 Keel, W.C. 172, 43

An objective-prism survey of emission-line objects in M 33 and IC 1613

Lequeux, J., Meyssonnier, N., Azzopardi, M. 173, 218; 67, 169

Relation between mass and central temperature in supermassive stars

Mitalas, R., Manuel, P.W. 173, 244

The stellar association LH 39 in the Large Magellanic cloud and its Wolf-Rayet star

Schild, H. 173, 405

Computed He II spectra for Wolf-Rayet stars: a grid of models Hamann, W.-R., Schmutz, W. 174, 173

The possible appearance of a second period in the WN 5 star EZ Canis Majoris

Gosset, E., Vreux, J.-M. 178, 153

HD 151932 variability revisited

Vreux, J.M., Magain, P., Manfroid, J., Scuflaire, R. 180, L17 Speckle interferometric observations of the Wolf-Rayet star AS 431 and of early-type stars in Cyg OB 2

Lortet, M.C., Blazit, A., Bonneau, D., Foy, R. 180, 111

The galactic distribution of Wolf-Rayet stars

Doom, C. 182, L43

Infrared photometry of late-type Wolf-Rayet stars Williams, P.M., van der Hucht, K.A., Thé, P.S. 182, 91

Evolution of massive stars without convective core overshooting Vanbeveren, D. 182, 207

Direct imagery of circumstellar shells around Ofpe/WN9 stars in the galaxy and in the LMC

Stahl, O. 182, 229

Grids of evolutionary models of massive stars with mass loss and overshooting. Properties of Wolf-Rayet stars sensitive to overshooting

Maeder, A., Meynet, G. 182, 243

Su

M

Which photometric period for WR 16?

Manfroid, J., Gosset, E., Vreux, J.M. 185, L7

A high precision photometric investigation of the micro-variations of Wolf-Rayet stars

van Genderen, A.M., van der Hucht, K.A., Steemers, W.J.G. 185, 131

High-dispersion spectroscopy of the Of/WN stars R 84 and S 61 of the Large Magellanic Cloud

Wolf, B., Stahl, O., Seifert, W. 186, 182

Stars: B Cep

The light curve of BW Vulpeculae

Sterken, C., Young, A., Furenlid, I. 177, 150

uvby photometry of southern B- and A-stars

van der Linden, D., Sterken, C. 178, 325; 69, 157

New observations and frequency analysis of the β Cephei star τ^1 Lupi

Cuypers, J. 180, 280; 69, 445

The period of BW Vulpeculae

van der Linden, D., Sterken, C. 186, 129

Stars: & Scu

The Fourier coefficients derived from the decomposition of pulsating star light curves

Antonello, E., Broglia, P., Conconi, P., Mantegazza, L. 171, 131

Multiple close frequencies of the Delta Scuti star θ^2 Tau

Breger, M., Huang Lin, Jiang Shi-yang, Guo Zi-he, Antonello, E., Mantegazza, L. 175, 117

uvby photometry of southern B- and A-stars

van der Linden, D., Sterken, C. 178, 325; 69, 157

HD 37819 \equiv V 356 Aur, a double-mode δ Sct star with an unusual period ratio

Poretti, E., Mantegazza, L., Antonello, E. 181, 273

Constraints on the interpretation of the neutrino experiments by the optical observations of SN 1987a

Wampler, E.J., Truran, J.W., Lucy, L.B., Höflich, P., Hillebrandt, W. 182, L51

A new, distant dwarf nova: 2138-453

Hawkins, M.R.S., Véron, P. 182, 271

The variable star HD 79889

Oja, T. 184, 215

Submillimetre radiation; see Infrared radiation

Sun (the): abundances

Determination of temperature conditions of solar energetic particle emission regions

Vahia, M.N. 173, 361

Stellar evolution with turbulent diffusion mixing. VI. The solar model, surface ⁷Li and ³He abundances, solar neutrinos and oscillations

Lebreton, Y., Maeder, A. 175, 99

An LTE analysis of the solar photospheric Ti1 and Cr1 spectra: evidence for non-LTE in excitation

Blackwell, D.E., Booth, A.J., Menon, S.L.R., Petford, A.D. 180, 229

The solar platinum content

Youssef, N.H., Khalil, N.M. 186, 333

Sun (the): activity of

Ground-based measurements of solar intensity oscillations Jimenez, A., Pallé, P.L., Roca Cortés, T., Domingo, V., Korzennik, S. 172, 323 Meridional motions of sunspots from 1947.9 to 1985.0. II. Latitude motions dependent on spot type and phase of the activity cycle

Lustig, G., Hanslmeier, A. 172, 332

An αω-dynamo with an α-effect due to magnetostrophic waves Schmitt, D. 174, 281

Very-Large-Array observations of a complex gradual solar burst at 6 cm wavelength

Kundu, M.R., McConnell, D., White, S.M., Shevgaonkar, R.K. 176, 131

Spurious variation of photospheric magnetic flux

Grossmann-Doerth, U., Pahlke, K.-D., Schüssler, M. 176, 139 Solar active regions: radiative intensities and large-scale parameters of the magnetic field

Schrijver, C.J. 180, 241

Some solar cycle phenomena related to the geomagnetic activity from 1868 to 1980. III. Quiet-days, fluctuating activity of the solar equatorial belt as the main origin of the solar wind flowing in the ecliptic plane

Simon, P.A., Legrand, J.P. 182, 329

A catalogue of sunspot observations from 165 BC to AD 1684 Wittmann, A.D., Xu, Z.T. 182, 361; 70, 83

Local rigid rotation and the emergence of Active Centres Mouradian, Z., Martres, M.J., Soru-Escaut, I., Gesztelyi, L. 183, 129

Generation and structure of the electric currents in a flaring activity complex

Hénoux, J.C., Somov, B.V. 185, 306

Properties of solar magnetic fluxtubes from only two spectral lines

Solanki, S.K., Keller, C., Stenflo, J.O. 188, 183

Sun (the): atmosphere of

Viscous damping of Alfvén normal modes in non-uniform plasmas

Mok, Y. 172, 327

Determination of temperature conditions of solar energetic particle emission regions

Vahia, M.N. 173, 361

A non-LTE study of the solar emission lines near 12 μm Lemke, M., Holweger, H. 173, 375

Non-thermal excitation and ionization of hydrogen in solar flares. II. Effects on the temperature minimum region: energy balance and white light flares

Aboudarham, J., Henoux, J.C. 174, 270

Observations of oscillatory phase-shifts with diode arrays Staiger, J. 175, 263

Semi-empirical models of a quiescent prominence Zhang, Q.Z., Fang, C. 175, 277

Solar granulation power spectra from speckle interferometry von der Lühe, O., Dunn, R.B. 177, 265

An LTE analysis of the solar photospheric Ti1 and Cr1 spectra: evidence for non-LTE in excitation

Blackwell, D.E., Booth, A.J., Menon, S.L.R., Petford, A.D. 180, 229

Sun (the): bursts

The speeds of electrons that excite solar radio bursts of type III Dulk, G.A., Steinberg, J.L., Hoang, S., Goldman, M.V. 173, 366

Microwave emission of solar electron beams Stähli, M., Benz, A.O. 175, 271

Wide visibility of kilometric type III bursts Sawyer, C., Warwick, J.W. 177, 277

Aspects of interplanetary plasma turbulence

Celnikier, L.M., Muschietti, L., Goldman, M.V. 181, 138

Solar soft X-ray pulsations

Harrison, R.A. 182, 337

Microwave radiation from a dense magneto-active plasma Klein, K.-L. 183, 341

Sun (the): chromosphere of

Viscous damping of Alfvén normal modes in non-uniform plasmas

Mok, Y. 172, 327

Non-thermal excitation and ionization of hydrogen in solar flares. II. Effects on the temperature minimum region: energy balance and white light flares

Aboudarham, J., Henoux, J.C. 174, 270

Analysis of solar eclipse data: spicule model in the middle chromosphere

Cuny, Y. 175, 243

temperatures

Observations of oscillatory phase-shifts with diode arrays Staiger, J. 175, 263

Inversion of line profile disturbances. A non-linear method applied to solar Ca II lines

Mein, P., Mein, N., Malherbe, J.M., Dame, L. 177, 283

Acoustic tube waves in the solar atmosphere. I. Magnesium and calcium line emission with complete redistribution

Ulmschneider, P., Muchmore, D., Kalkofen, W. 177, 292
Thermal diffusion in partially ionized gases: the case of unequal

Geiss, J., Bürgi, A. 178, 286

An analytical study of shock waves in thin magnetic flux tubes Ferriz-Mas, A., Moreno-Insertis, F. 179, 268

Resonance scattering of Lyman-α in the presence of an electro-

Favati, B., Landi Degl'Innocenti, E., Landolfi, M. 179, 329
Solar active regions: radiative intensities and large-scale parameters of the magnetic field

Schrijver, C.J. 180, 241

Ion-collision broadening of solar lines in the far-infrared and submillimeter spectrum

Hoang-Binh, D., Brault, P., Picart, J., Tran-Minh, N., Vallée, O. 181, 134

Sun (the): corona of

Viscous damping of Alfvén normal modes in non-uniform plasmas

Mok, Y. 172, 327

Results of interferometric observations of the F-corona radial velocity field between 3 and 7 solar radii

Shcheglov, P.V., Shestakova, L.I., Ajmanov, A.K. 173, 383
Are solar radio fluctuations real?

Benz, A.O., Fürst, E. 175, 282

Interpretation of F-corona radial velocity observations

Shestakova, L.I. 175, 289

Mean properties of the polarization of the Fe XIII 10747 Å coronal emission line

Arnaud, J., Newkirk, G., Jr. 178, 263

The thermal stability of coronal loops by nonlinear diffusion asymptotics

Pakkert, J.W., Martens, P.C.H., Verhulst, F. 179, 285

Resonance scattering of Lyman-α in the presence of an electrostatic field

Favati, B., Landi Degl'Innocenti, E., Landolfi, M. 179, 329 Solar active regions: radiative intensities and large-scale parameters of the magnetic field

Schrijver, C.J. 180, 241

The theory of magnetic coronal heating

Vekstein, G.E. 182, 324

Solar soft X-ray pulsations

Harrison, R.A. 182, 337

Si IV line ratios in laboratory plasmas: a comparison of experimental data and theoretical computations

Finkenthal, M., Yu, T.L., Allen, S.L., Huang, L.K., Lippmann, S., Moos, H.W., Stratton, B.C., Dufton, P.L., Kingston, A.E. 184, 337

Sun (the): cosmic rays

Approximate solutions to the cosmic ray transport equation: the maximum entropy method

Hick, P., Stevens, G. 172, 350

Determination of temperature conditions of solar energetic particle emission regions

Vahia, M.N. 173, 361

The interstellar cosmic ray spectrum and energy density. Interplanetary cosmic ray gradients and a new estimate of the boundary of the heliosphere

Webber, W.R. 179, 277

Microwave radiation from a dense magneto-active plasma

Klein, K.-L. 183, 341

Solar modulation of galactic antiprotons

Perko, J.S. 184, 119

Optical evolution of laboratory-produced organics: applications to Phoebe, Iapetus, outer belt asteroids and cometary nuclei

Andronico, G., Baratta, G.A., Spinella, F., Strazzulla, G. 184, 333

Sun (the): faculae

Center-to-limb variation of Stokes profiles and the diagnostics of solar magnetic fluxtubes

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 171, 305

Diagnostics of solar magnetic fluxtubes with the infrared line Fe I λ 15648.54 Å

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 173, 167

Properties of solar magnetic fluxtubes from only two spectral lines

Solanki, S.K., Keller, C., Stenflo, J.O. 188, 183

Sun (the): flares

Determination of temperature conditions of solar energetic particle emission regions

Vahia, M.N. 173, 361

Non-thermal excitation and ionization of hydrogen in solar flares. II. Effects on the temperature minimum region: energy balance and white light flares

Aboudarham, J., Henoux, J.C. 174, 270

The quasi-linear relaxation and bremsstrahlung of thick target electron beams in solar flares

McClements, K.G. 175, 255

Very-Large-Array observations of a complex gradual solar burst at 6 cm wavelength

Kundu, M.R., McConnell, D., White, S.M., Shevgaonkar, R.K. 176, 131

Resonance scattering of Lyman-α in the presence of an electrostatic field

Favati, B., Landi Degl'Innocenti, E., Landolfi, M. 179, 329 Ionization balance for iron XXV, XXIV and XXIII derived from solar flare X-ray spectra

Antonucci, E., Dodero, M.A., Gabriel, A.H., Tanaka, K., Dubau. J. 180, 263

Unresolved dielectronic satellite lines of Ly α Ca XX resonance lines in high temperature plasmas

Volonté, S., Lion, J., Faucher, P., Dubau, J. 182, 167

Generation and structure of the electric currents in a flaring activity complex

Hénoux, J.C., Somov, B.V. 185, 306

Calcium ionization balance and argon/calcium abundance in solar flares

Antonucci, E., Marocchi, D., Gabriel, A.H., Doschek, G.A. 188, 159

Sun (the): general

Ground-based measurements of solar intensity oscillations Jimenez, A., Pallé, P.L., Roca Cortés, T., Domingo, V., Kor-

zennik, S. 172, 323
Determination of the mean lifetime of solar features from photographic observations

Alissandrakis, C.E., Dialetis, D., Tsiropoula, G. 174, 275

Sun observations in 1984–1985 at the CERGA astrolabe (Text in French)

Laclare, F., Journet, A. 178, 323; 69, 77

Fine structures in solar filaments. I. Observations and thermal stability

Démoulin, P., Raadu, M.A., Malherbe, J.M., Schmieder, B. 183, 142

Sun (the): granulation

Interpretation of shifts and asymmetries of Fe1 lines in solar facular areas

Cavallini, F., Ceppatelli, G., Righini, A. 173, 155

5-min oscillations in the wings and bisectors of solar photospheric Fe 1 lines

Cavallini, F., Ceppatelli, G., Righini, A., Alamanni, N. 173,

Determination of the mean lifetime of solar features from photographic observations

Alissandrakis, C.E., Dialetis, D., Tsiropoula, G. 174, 275 Solar granulation power spectra from speckle interferometry von der Lühe, O., Dunn, R.B. 177, 265

A new determination of the solar granulation contrast Collados, M., Vázquez, M. 180, 223

The gradient of the small-scale velocity fluctuation in the solar atmosphere

Nesis, A., Mattig, W., Fleig, K.H., Wiehr, E. 182, L5

Sun (the): interior; see Sun (the): structure of

Sun (the): magnetic fields

Center-to-limb variation of Stokes profiles and the diagnostics of solar magnetic fluxtubes

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 171, 305

Turbulent transport of magnetic fields. I. A simple mechanical model

Hoyng, P. 171, 348

Turbulent transport of magnetic fields. II. The role of fluctuations in kinematic theory

Hoyng, P. 171, 357

Interpretation of shifts and asymmetries of Fe I lines in solar facular areas

Cavallini, F., Ceppatelli, G., Righini, A. 173, 155

Diagnostics of solar magnetic fluxtubes with the infrared line Fe1 λ 15648.54 Å

Stenflo, J.O., Solanki, S.K., Harvey, J.W. 173, 167

An αω-dynamo with an α-effect due to magnetostrophic waves Schmitt, D. 174, 281

Determination of velocity and magnetic fields from observational data in solar active regions

Berton, R. 175, 238

Spurious variation of photospheric magnetic flux

Grossmann-Doerth, U., Pahlke, K.-D., Schüssler, M. 176, 139 Gray's constant and "swiss cheese" and "sea serpents" in stellar convection zones

Belvedere, G., Pidatella, R.M., Stix, M. 177, 183

Polarimetry and imagery through uniaxial crystals. Application to solar observations with high spatial resolution

Semel. M. 178, 257

Mean properties of the polarization of the Fe XIII 10747 Å coronal emission line

Arnaud, J., Newkirk, G., Jr. 178, 263

An analytical study of shock waves in thin magnetic flux tubes Ferriz-Mas, A., Moreno-Insertis, F. 179, 268

The method of projected characteristics for the evolution of magnetic arches

Nakagawa, Y., Hu, Y.Q., Wu, S.T. 179, 354

Varying self-inductance and energy storage in a sheared force-free arcade

Zuccarello, F., Burm, H., Kuperus, M., Raadu, M., Spicer, D.S. 180, 218

Solar active regions: radiative intensities and large-scale parameters of the magnetic field

Schrijver, C.J. 180, 241

Some solar cycle phenomena related to the geomagnetic activity from 1868 to 1980. III. Quiet-days, fluctuating activity of the solar equatorial belt as the main origin of the solar wind flowing in the ecliptic plane

Simon, P.A., Legrand, J.P. 182, 329

Solar soft X-ray pulsations

Harrison, R.A. 182, 337

Generation and structure of the electric currents in a flaring activity complex

Hénoux, J.C., Somov, B.V. 185, 306

Properties of solar magnetic fluxtubes from only two spectral lines

Solanki, S.K., Keller, C., Stenflo, J.O. 188, 183

Sun (the): oscillations of

Dynamics of solar filaments. V. Oscillations in the H_{α} and 1548 Å CIV lines

Malherbe, J.M., Schmieder, B., Mein, P., Tandberg-Hanssen, E. 172, 316

Ground-based measurements of solar intensity oscillations

Jimenez, A., Pallé, P.L., Roca Cortés, T., Domingo, V., Korzennik, S. 172, 323

5-min oscillations in the wings and bisectors of solar photospheric Fe I lines

Cavallini, F., Ceppatelli, G., Righini, A., Alamanni, N. 173, 161

Stellar evolution with turbulent diffusion mixing. VI. The solar model, surface ⁷Li and ³He abundances, solar neutrinos and oscillations

Lebreton, Y., Maeder, A. 175, 99

Influence of the perturbation of the Reynold tensor on the stability of the solar 5-minute oscillations

Gabriel, M. 175, 125

Observations of oscillatory phase-shifts with diode arrays Staiger, J. 175, 263

Are solar radio fluctuations real?

Benz, A.O., Fürst, E. 175, 282

Search for solar p-mode frequency changes between 1980 and 1985

Fossat, E., Gelly, B., Grec, G., Pomerantz, M. 177, L47

Temporal variations of solar spectral line profiles induced by the 5-minute photospheric oscillation

Gomez, M.T., Marmolino, C., Roberti, G., Severino, G. 188,

Sun (the): photosphere of

Ground-based measurements of solar intensity oscillations Jimenez, A., Pallé, P.L., Roca Cortés, T., Domingo, V., Korzennik, S. 172, 323

Interpretation of shifts and asymmetries of Fe I lines in solar facular areas

Cavallini, F., Ceppatelli, G., Righini, A. 173, 155

5-min oscillations in the wings and bisectors of solar photospheric

Cavallini, F., Ceppatelli, G., Righini, A., Alamanni, N. 173, 161

Determination of temperature conditions of solar energetic particle emission regions

Vahia, M.N. 173, 361

Non-thermal excitation and ionization of hydrogen in solar flares. II. Effects on the temperature minimum region: energy balance and white light flares

Aboudarham, J., Henoux, J.C. 174, 270

Observations of oscillatory phase-shifts with diode arrays Staiger, J. 175, 263

Spurious variation of photospheric magnetic flux

Grossmann-Doerth, U., Pahlke, K.-D., Schüssler, M. 176, 139

The gradient of the small-scale velocity fluctuation in the solar atmosphere

Nesis, A., Mattig, W., Fleig, K.H., Wiehr, E. 182, L5

The solar platinum content

Youssef, N.H., Khalil, N.M. 186, 333

Sun (the): prominences

Semi-empirical models of a quiescent prominence Zhang, Q.Z., Fang, C. 175, 277

Local rigid rotation and the emergence of Active Centres

Mouradian, Z., Martres, M.J., Soru-Escaut, I., Gesztelyi, L.

183, 129

Fine structures in solar filaments. I. Observations and thermal stability

Démoulin, P., Raadu, M.A., Malherbe, J.M., Schmieder, B. 183, 142

Formation of the hydrogen spectrum in quiescent prominences: one-dimensional models with standard partial redistribution Heinzel, P., Gouttebroze, P., Vial, J.-C. 183, 351 Linear polarization of hydrogen Balmer lines in optically thick quiescent prominences. I. Theoretical investigation

Landi Degl'Innocenti, E., Bommier, V., Sahal-Bréchot, S. 186, 335

Sun (the): radio radiation of

The speeds of electrons that excite solar radio bursts of type III Dulk, G.A., Steinberg, J.L., Hoang, S., Goldman, M.V. 173, 366

Microwave emission of solar electron beams

Stähli, M., Benz, A.O. 175, 271

Are solar radio fluctuations real?

Benz, A.O., Fürst, E. 175, 282

Very-Large-Array observations of a complex gradual solar burst at 6 cm wavelength

Kundu, M.R., McConnell, D., White, S.M., Shevgaonkar, R.K. 176, 131

Wide visibility of kilometric type III bursts

Sawyer, C., Warwick, J.W. 177, 277

Microwave radiation from a dense magneto-active plasma

Klein, K.-L. 183, 341
Source sizes of type III bursts at hectometric wavelengths as de-

termined from ionospheric cutoffs Schreiber, R., Hanasz, J. 188, 178

Sun (the): rotation of

Dynamics of solar filaments. V. Oscillations in the H_{α} and 1548 Å Cry lines

Malherbe, J.M., Schmieder, B., Mein, P., Tandberg-Hanssen, E. 172, 316

An αω-dynamo with an α-effect due to magnetostrophic waves Schmitt, D. 174, 281

The solar rotation elements i and Ω derived from recurrent single superpote

Balthasar, H., Stark, D., Wöhl, H. 174, 359

Local rigid rotation and the emergence of Active Centres Mouradian, Z., Martres, M.J., Soru-Escaut, I., Gesztelyi, L. 183, 129

Sun (the): solar wind; see also Interplanetary medium

Interpretation of F-corona radial velocity observations Shestakova, L.I. 175, 289

Heating of helium of interstellar origin through elastic collisions with solar wind protons inside the heliosphere

Chassefière, E., Bertaux, J.L. 176, 121

The interstellar cosmic ray spectrum and energy density. Interplanetary cosmic ray gradients and a new estimate of the boundary of the heliosphere

Webber, W.R. 179, 277

Aspects of interplanetary plasma turbulence

Celnikier, L.M., Muschietti, L., Goldman, M.V. 181, 138

Some solar cycle phenomena related to the geomagnetic activity from 1868 to 1980. III. Quiet-days, fluctuating activity of the solar equatorial belt as the main origin of the solar wind flowing in the ecliptic plane

Simon, P.A., Legrand, J.P. 182, 329

Plasma flow in the cometosheath of P/Halley during the encounter of Suisei

Takahashi, S., Terasawa, T., Mukai, T., Kitayama, M., Miyake, W., Hirao, K. 187, 94

Plasma-tail activity at the time of the Vega encounters Niedner, M.B., Jr., Schwingenschuh, K. 187, 103 Hydromagnetic waves associated with cometary water group ions: Sakigake observation

Yumoto, K., Saito, T., Nakagawa, T. 187, 117

Description of the main boundaries seen by the Giotto electron experiment inside comet P/Halley-solar wind interaction region

d'Uston, C., Rème, H., Sauvaud, J.A., Cros, A., Anderson, K.A., Carlson, C.W., Curtis, D., Lin, R.P., Korth, A., Richter, A.K., Mendis, A. 187, 137

The composition and dynamics of cometary ions in the outer coma of comet P/Halley

Balsiger, H., Altwegg, K., Bühler, F., Fuselier, S.A., Geiss, J., Goldstein, B.E., Goldstein, R., Huntress, W.T., Ip, W.-H., Lazarus, A.J., Meier, A., Neugebauer, M., Rettenmund, U., Rosenbauer, H., Schwenn, R., Shelley, E.G., Ungstrup, E., Young, D.T. 187, 163

Possible models on disturbances of the plasma tail of comet P/Halley during the 1985–1986 apparition

Saito, T., Saito, K., Aoki, T., Yumoto, K. 187, 201

Structure and dynamics of the plasma tail of comet P/Halley. I. Knot event on December 31, 1985

Saito, T., Yumoto, K., Hirao, K., Minami, S., Saito, K., Smith, E. 187, 209

Structure and dynamics of the plasma tail of comer P/Halley. II. Kink event on January 10-11, 1986

Tomita, K., Saito, T., Minami, S. 187, 215

Plasma structures in comets P/Halley and Giacobini-Zinner Brandt, J.C., Niedner, M.B., Jr. 187, 281

The upstream region, foreshock and bow shock wave at comet P/Halley from plasma electron measurements

Anderson, K.A., Carlson, C.W., Curtis, D.W., Lin, R.P., Rème, H., Sauvaud, J.A., d'Uston, C., Korth, A., Richter, A.K., Mendis, D.A. 187, 290

Charge exchange of solar wind ions in the coma of comet P/Halley

Shelley, E.G., Fuselier, S.A., Balsiger, H., Drake, J.F., Geiss, J., Goldstein, B.E., Goldstein, R., Ip, W.-H., Lazarus, A.J., Neugebauer, M. 187, 304

Source sizes of type III bursts at hectometric wavelengths as determined from ionospheric cutoffs

Schreiber, R., Hanasz, J. 188, 178

Sun (the): solar-terrestrial relations; see also Interplanetary medium

The interstellar cosmic ray spectrum and energy density. Interplanetary cosmic ray gradients and a new estimate of the boundary of the heliosphere

Webber, W.R. 179, 277

Some solar cycle phenomena related to the geomagnetic activity from 1868 to 1980. III. Quiet-days, fluctuating activity of the solar equatorial belt as the main origin of the solar wind flowing in the ecliptic plane

Simon, P.A., Legrand, J.P. 182, 329

Sun (the): structure of

Effects of cosmions in the Sun and in globular cluster stars Renzini, A. 171, 121

Ground-based measurements of solar intensity oscillations Jimenez, A., Pallé, P.L., Roca Cortés, T., Domingo, V., Korzennik, S. 172, 323

Gray's constant and "swiss cheese" and "sea serpents" in stellar convection zones

Belvedere, G., Pidatella, R.M., Stix, M. 177, 183

The fate of the Earth in the red giant envelope of the Sun Goldstein, J. 178, 283

Sun (the): sunspots

Meridional motions of sunspots from 1947.9 to 1985.0. II. Latitude motions dependent on spot type and phase of the activity cycle

Lustig, G., Hanslmeier, A. 172, 332

The solar rotation elements i and Ω derived from recurrent single sunspots

Balthasar, H., Stark, D., Wöhl, H. 174, 359

Determination of velocity and magnetic fields from observational data in solar active regions

Berton, R. 175, 238

A catalogue of sunspot observations from 165 BC to AD 1684 Wittmann, A.D., Xu, Z.T. 182, 361; 70, 83

Sun (the): X-rays

The quasi-linear relaxation and bremsstrahlung of thick target electron beams in solar flares

McClements, K.G. 175, 255

The thermal stability of coronal loops by nonlinear diffusion asymptotics

Pakkert, J.W., Martens, P.C.H., Verhulst, F. 179, 285

Ionization balance for iron XXV, XXIV and XXIII derived from solar flare X-ray spectra

Antonucci, E., Dodero, M.A., Gabriel, A.H., Tanaka, K., Dubau, J. 180, 263

Unresolved dielectronic satellite lines of Ly α Ca XX resonance lines in high temperature plasmas

Volonté, S., Lion, J., Faucher, P., Dubau, J. 182, 167

Solar soft X-ray pulsations

Harrison, R.A. 182, 337

Microwave radiation from a dense magneto-active plasma Klein, K.-L. 183, 341

Calcium ionization balance and argon/calcium abundance in solar flares

Antonucci, E., Marocchi, D., Gabriel, A.H., Doschek, G.A. 188, 159

Supernovae and supernova remnants: general

The radio structure of supernova remnants

Manchester, R.N. 171, 205

The structure and dynamics of young supernova remnants: new constraints from observations of shock-heated dust

Braun, R. 171, 233

Southern H II regions: an extensive study of radio recombination line emission

Caswell, J.L., Haynes, R.F. 171, 261

Condensation of small spherical non-gravitationally bound cool clouds

Parravano, A. 172, 280

Model calculations for supernova remnants in the Large Magellanic Cloud

Contini, M. 174, 5

The sources of gravitational waves with continuous and discrete spectra

Lipunov, V.M., Postnov, K.A., Prokhorov, M.E. 176, L1

The hydrodynamics of clouds overtaken by supernova remnants. II. Attrition shocks, condensation and ejection of clouds *Różyczka, M., Tenorio-Tagle, G.* 176, 329

Optical spectroscopy of SN 1987 A

Danziger, I.J., Fosbury, R.A.E., Alloin, D., Cristiani, S., Dachs, J., Gouiffes, C., Jarvis, B., Sahu, K.C. 177, L13

Implications of the UV observations of SN 1987 A

Fransson, C., Grewing, M., Cassatella, A., Panagia, N., Wamsteker, W. 177, L33

Thermal and nonthermal radio emission from the Small Magellanic Cloud

Loiseau, N., Klein, U., Greybe, A., Wielebinski, R., Haynes, R.F. 178, 62

Magnesium isotopes in metal-poor and metal-rich stars Barbuy, B., Spite, F., Spite, M. 178, 199

Second-order Fermi acceleration and radio spectral index distributions in supernova remnants and bright spiral galaxies Dröge, W., Lerche, I., Schlickeiser, R. 178, 252

The harmonic structure of the February 23.316 neutrino burst from the Supernova 1987 A

Ögelman, H., Buccheri, R. 180, L23

Multifrequency radio continuum observations of extended galactic objects. II. Eleven objects from the 2695 MHz Effelsberg galactic plane survey

Fürst, E., Handa, T., Reich, W., Reich, P., Sofue, Y. 180, 279; 69, 403

32 GHz radio continuum observations of four plerionic supernova remnants

Morsi, H.W., Reich, W. 180, 282; 69, 533

Properties of supernova remnants at known distances. II. The effect of ambient density on number-diameter relations

Berkhuijsen, E.M. 181, 398

The incompressibility of hot, neutron-rich nuclear matter Vinas, X., Barranco, M., Treiner, J., Stringari, S. 182, L34

Non-spherical supernova remnants. IV. Sequential explosions in OB associations

Tenorio-Tagle, G., Bodenheimer P., Różyczka, M. 182, 120 Equations of state of hot dense matter

Lassaut, M., Flocard, H., Bonche, P., Heenen, P.H., Suraud, E. 183, L3

Could there be terrestrial signatures of the EUV pulse from Supernova 1987 A?

Ögelman, H., Böhringer, H., Buchert, S., Çakır, S., LaBelle, J., Treumann, R.A. 183, L27

The complex structure of Cas A. Consistent model calculations Contini, M. 183, 53

Barrel-shaped supernova remnants

Kesteven, M.J., Caswell, J.L. 183, 118

Model atmospheres for type I supernovae: curvature effects López, R., Simonneau, E., Isern, J. 184, 249

Chemical evolution of elliptical galaxies Matteucci, F., Tornambè, A. 185, 51

The nature of the companion of SN 1987 A Goldman, I. 186, L3

Giant-scale supernova remnants. The role of differential galactic rotation and the formation of molecular clouds

Tenorio-Tagle, G., Palouš, J. 186, 287

The identification of galactic radio sources based on a comparison of radio-continuum and infrared emission

Fürst, E., Reich, W., Sofue, Y. 186, 362; 71, 63

32 GHz radio continuum observations of four shell-type supernova remnants

Morsi, H.W., Reich, W. 188, 265; 71, 189

Supernovae and supernova remnants: individual

Interstellar lines in SN 1987 A observed with the IUE

de Boer, K.S., Grewing, M., Richtler, T., Wamsteker, W., Gry, C., Panagia, N. 177, L37

Evidence for a finite electron neutrino rest mass from SN 1987 A

Hillebrandt, W., Höflich, P., Kafka, P., Müller, E., Schmidt, H.U., Truran, J.W., Wampler, J. 177, L41

Indications for black hole formation from neutrino observations in SN 1987 A

Hillebrandt, W., Höflich, P., Kafka, P., Müller, E., Schmidt, H.U., Truran, J.W. 180, L20

The harmonic structure of the February 23.316 neutrino burst from the Supernova 1987 A

Ögelman, H., Buccheri, R. 180, L23

The $H\alpha$ velocity structure during the first month of SN 1987 A in the LMC

Hanuschik, R.W., Dachs, J. 182, L29

Computed ultraviolet spectra for SN 1987A

Lucy, L.B. 182, L31

Could there be terrestrial signatures of the EUV pulse from Supernova 1987 A?

Ögelman, H., Böhringer, H., Buchert, S., Çakır, S., LaBelle, J., Treumann, R.A. 183, L27

The nature of the companion of SN 1987 A

Goldman, I. 186, L3

The interaction of the UV burst of Supernova 1987 A with a nearby cloud: a possible explanation of the speckle images

Hillebrandt, W., Höflich, P., Schmidt, H.U., Truran, J.W. 186, L9

The neutrino burst from Supernova 1987 A: a search for periodicities

Fischer, D. 186, L11

Cas A

The structure and dynamics of young supernova remnants: new constraints from observations of shock-heated dust

Braun, R. 171, 233

The complex structure of Cas A. Consistent model calculations Contini, M. 183, 53

Cral

Discovery of continuum emission in the jet and of absorption in the filaments of the Crab Nebula

Woltjer, L., Véron-Cetty, M.-P. 172, L7

A detailed analysis of the high energy gamma-ray emission from the Crab pulsar and nebula

Clear, J., Bennett, K., Buccheri, R., Grenier, I.A., Hermsen, W., Mayer-Hasselwander, H.A., Sacco, B. 174, 85

G 109.1-1.0

Molecular clouds in the vicinity of the semicircular supernova remnant G 109.1-1.0

Tatematsu, K., Fukui, Y., Nakano, M., Kogure, T., Ogawa, H., Kawabata, K. 184, 279

IC 443

Molecular line observations of IC 443. The interaction of a molecular cloud and an interstellar shock

White, G.J., Rainey, R., Hayashi, S.S., Kaifu, N. 173, 337

Kepler

The structure and dynamics of young supernova remnants: new constraints from observations of shock-heated dust Braun, R. 171, 233

MSH 15.52

The region of the supernova remnant MSH 15-52 revisited: A new thermal H $\scriptstyle\rm II$ region, H $\scriptstyle\rm II$ G 320.5-1.4

Lortet, M.-C., Georgelin, Y.P., Georgelin, Y.M. 180, 65

RCW 89

The region of the supernova remnant MSH 15-52 revisited: A new thermal H II region, H II G 320.5-1.4

Lortet, M.-C., Georgelin, Y.P., Georgelin, Y.M. 180, 65

SN 1987 A

Astrometry of SN 1987 A and Sanduleak -69 202
West, R.M., Lauberts, A., Jørgensen, H.E., Schuster, H.-E.

Polarimetry of SN 1987 A

Schwarz, H.E., Mundt, R. 177, L4

Photometry of SN 1987 A

Cristiani, S., Babel, J., Barwig, H., Clausen, J.V., Gouiffes, C., Günter, T., Helt, B.E., Heynderickx, D., Loyola, P., Magnusson, P., Monderen, P., Rabattu, X., Sauvageot, J.L., Schoembs, R., Schwarz, H., Steeman, F. 177, L5

Infrared photometry of SN 1987 A

Bouchet, P., Stanga, R., Le Bertre, T., Epchtein, N., Hamann, W.R., Lorenzetti, D. 177, L9

Optical spectroscopy of SN 1987 A

Danziger, I.J., Fosbury, R.A.E., Alloin, D., Cristiani, S., Dachs, J., Gouiffes, C., Jarvis, B., Sahu, K.C. 177, L13

The interstellar spectrum toward SN 1987 A

Vidal-Madjar, A., Andreani, P., Cristiani, S., Ferlet, R., Lanz, T., Vladilo, G. 177, L17

Early observations of Supernova 1987 A with the International Ultraviolet Explorer (IUE)

Wamsteker, W., Panagia, N., Barylak, M., Cassatella, A., Clavel, J., Gilmozzi, R., Gry, C., Lloyd, C., van Santvoort, J., Talavera, A. 177, L21

Photometric properties of SN 1987 A and other sources in the same field

Panagia, N., Gilmozzi, R., Clavel, J., Barylak, M., Gonzalez Riesta, R., Lloyd, C., Sanz Fernandez de Corboda, L., Wamsteker, W. 177, L25

Spectral evolution of SN 1987 A in the far-ultraviolet

Cassatella, A., Fransson, C., van Santvoort, J., Gry, C., Talavera, A., Wamsteker, W., Panagia, N. 177, L29

The disruption of a light neutron star in an ultraclose binary and the second neutrino burst from SN 1987 A

Stella, L., Treves, A. 185, L5

Deconvolution of a pre-outburst picture of SN 1987 A

Heap, S.R., Lindler, D.J. 185, L10

The modulation of neutrinos from SN 1987 A during stellar collapse

de Jager, O.C. 185, L13

Tycho

The structure and dynamics of young supernova remnants: new constraints from observations of shock-heated dust

Braun, R. 171, 233

Surveys

Investigation of a complete sample of flat spectrum radio sources from the S5 survey. II. Results

Eckart, A., Witzel, A., Biermann, P., Johnston, K.J., Simon, R., Schalinski, C., Kühr, H. 173, 217; 67, 121

The final COS-B database: in-flight calibration of sensitivity and instrumental background behaviour

Strong, A.W., Bloemen, J.B.G.M., Lebrun, F., Hermsen, W., Mayer-Hasselwander, H.A., Buccheri, R. 173, 418; 67, 283

A continuum survey of dwarf galaxies at 1400 MHz, II

Altschuler, D.R., Giovanardi, C., Pantoja, C.A. 177, 22

A survey for H1 in voids

Hulsbosch, A.N.M. 180, 280; 69, 439

A survey of linear polarization along the Gaiactic Plane. The area $4^\circ.9 \le l \le 76^\circ, -1^\circ.5 \le b \le 1^\circ.5$

Junkes, N., Fürst, E., Reich, W. 180, 280; 69, 451

Planetary nebulae of low surface brightness: gleanings from the "POSS"

Hartl, H., Weinberger, R. 180, 281; 69, 519

An objective-prism survey for $H\alpha$ -emission-line stars of a field in Puppis

Pettersson, B. 182, 361; 70, 69

Spectroscopic survey of the Case blue and emission line galaxies Augarde, R., Figon, P., Kunth, D., Sèvre, F. 185, 4

Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 186, 362; 71, 39

Erratum: Valinhos 2.2 µm survey of the southern galactic plane. II. Near-IR photometry, IRAS identifications and nature of the sources

Epchtein, N., Le Bertre, T., Lépine, J.R.D., Marques dos Santos, P., Matsuura, O.T., Picazzio, E. 188, 269; 71, 411

Synchrotron radiation; see Radiation mechanisms

Time

Time observations with the Photoelectric Transit Instrument at the Observatory of Torino in the period 1980.3-1985.3, reduced in the MERIT Standards

Chiumiento, G., Sarasso, M. 180, 279; 69, 415

Right ascension corrections to 120 FK 4-stars by the analysis of time observations obtained with the Photoelectric Transit Instrument at Torino Observatory

Chiumiento, G., Sarasso, M., Poma, A. 183, 403

Results of observations made in Paris with the astrolabe. Time and latitude 1986

Chollet, F., Débarbat, S., Hascoët, J.-C., Lam, S.K., Mangombi dei Ilonga, J., Texier, P. 186, 363; 71, 109

Transition probabilities: see Atomic and molecular data

Turbulence

Turbulent transport of magnetic fields. I. A simple mechanical model

Hoyng, P. 171, 348

Turbulent transport of magnetic fields. II. The role of fluctuations in kinematic theory

Hoyng, P. 171, 357

Jeans collapse in a turbulent medium

Bonazzola, S., Falgarone, E., Heyvaerts, J., Pérault, M., Puget, J.L. 172, 293

The formation of interstellar molecular lines in a turbulent velocity field with finite correlation length

Albrecht, M.A., Kegel, W.H. 176, 317

Stabilization and consequences of relativistic electron bumps in extragalactic radio sources

Lesch, H., Schlickeiser, R. 179, 93

Aspects of interplanetary plasma turbulence

Celnikier, L.M., Muschietti, L., Goldman, M.V. 181, 138

Constraints for models of Be stars derived from UV and IRAS observations

Lamers, H.J.G.L.M., Waters, L.B.F.M. 182, 80

A model of the solar wind turbulence from radio occultation experiments

Armand, N.A., Efimov, A.I., Yakovlev, O.I. 183, 135

Microturbulence in the upper photosphere of α Persei (F5 Ib) derived from ultraviolet spectral observations

Spaan, F.H.P., de Jager, C., Nieuwenhuijzen, H., Kondo, Y. 185, 229

Encounters with comets: discoveries and puzzles in cometary plasma physics

Galeev, A.A. 187, 12

Alfvénic turbulence in the solar wind flow during the approach to comet P/Halley

Johnstone, A.D., Coates, A.J., Heath, J., Thomsen, M.F., Wilken, B., Jockers, K., Formisano, V., Amata, E., Winningham, J.D., Borg, H., Bryant, D.A. 187, 25

Comparative study of the low-frequency waves near comet P/ Halley during the Vega-1 and Vega-2 flybys

Savin, S., Avanesova, G., Balikhin, M., Wozniak, D., Wronowski, P., Klimov, S., Krawczyk, Z., Nozdrachev, M., Orlowski, D., Sokolov, A., Juchniewicz, J. 187, 89

MHD waves detected by ICE at distances ≥28 10⁶ km from comet P/Halley: Cometary or solar wind origin?

Tsurutani, B.T., Brinca, A.L., Smith, E.J., Thorne, R.M., Scarf, F.L., Gosling, J.T., Ipavich, F.M. 187, 97

Quasi-periodic features and the radial distribution of cometary ions in the cometary plasma region of comet P/Halley

Gringauz, K.I., Verigin, M.I., Richter, A.K., Gombosi, T.I., Szegö, K., Tátrallyay, M., Remizov, A.P., Apáthy, I. 187, 191

A simplified cascade model for M.H.D. turbulence *Carbone*, V., Veltri, P. 188, 239

UV radiation; see also under the different objects

Dynamics of solar filaments. V. Oscillations in the H_{α} and 1548 Å CIV lines

Malherbe, J.M., Schmieder, B., Mein, P., Tandberg-Hanssen, E. 172, 316

Rotational modulation and flares on RS CVn and BY Dra systems. II. IUE observations of BY Draconis and AU Microscopii Butler, C.J., Doyle, J.G., Andrews, A.D., Byrne, P.B., Linsky, J.L., Bornmann, P.L., Rodonò, M., Pazzani, V., Simon, T. 174, 139

Star formation in nuclei of S0/E galaxies

Rocca-Volmerange, B., Guiderdoni, B. 175, 15

The ultraviolet spectrum of the peculiar emission-line star GG Carinae

Brandi, E., Gosset, E., Swings, J.-P. 175, 151

The interpretation of the UV light of elliptical galaxies Kjærgaard, P. 176, 210

Implications of the UV observations of SN 1987 A

Fransson, C., Grewing, M., Cassatella, A., Panagia, N., Warnsteker, W. 177, L33

Geneva photometric boxes. V. The far-ultraviolet extinction in the solar neighbourhood

Nicolet, B. 177, 233

Non-LTE abundance analysis of the early-type high galactic latitude star HD 100340

Keenan, F.P., Brown, P.J.F., Conlon, E.S., Dufton, P.L., Lennon, D.J. 178, 194

Reasons why nova FH Serpentis 1970 probably had a total luminosity above the Eddington limit during its outburst *Friedjung, M.* 179, 164

Ultraviolet observations and star-formation rate in galaxies Donas, J., Deharveng, J.M., Laget, M., Milliard, B., Huguenin, D. 180, 12

NGC 40: IUE observations of the nucleus

Bianchi, L., Grewing, M. 181, 85

Photoprocessing of H₂S in interstellar grain mantles as an explanation for S₂ in comets

Grim, R.J.A., Greenberg, J.M. 181, 155

Oscillator strength measurements in the vacuum-ultraviolet. II. The strong 1260, 1277, 1329, 1463, 1561 and 1657 Å multiplets of neutral carbon

Goldbach, C., Nollez, G. 181, 203

The UV high resolution spectrum of A-type supergiants Talavera, A., Gomez de Castro, A.I. 181, 300

The relation between the visual polarisation and UV narrow absorption lines in irregular Be star variations

Brown, J.C., Henrichs, H.F. 182, 107

Silicon absorption in UV spectra of ApSi stars Artru, M.-C., Lanz, T. 182, 273

Ultraviolet properties of normal galaxies Stryczyński, J. 182, 362; 70, 115

Could there be terrestrial signatures of the EUV pulse from Supernova 1987 A?

Ögelman, H., Böhringer, H., Buchert, S., Çakır, S., LaBelle, J., Treumann, R.A. 183, L27

Different regions of line formation in the envelope of the early emission line star HD 190073

Ringuelet, A.E., Rovira, M., Cidale, L., Sahade, J. 183, 287

The IRAS cirrus and the diffuse ultraviolet background Jakobsen, P., de Vries, J.S., Paresce, F. 183, 335

IUE observations of the broad continuum feature at 1400 $\hbox{\normalfont\AA}$ in the silicon and related stars

Shore, S.N., Brown, D.N. 184, 219

The initial mass function for massive stars: a comparison between the total H α and ultraviolet fluxes of a sample of spiral and irregular galaxies

Buat, V., Donas, J., Deharveng, J.M. 185, 33

Variations in UV extinction in galactic associations and perpendicular to the galactic plane

Kiszkurno-Koziej, E., Lequeux, J. 185, 291

Star formation in the nucleus of the galaxy NGC 5253

González-Riestra, R., Rego, M., Zamorano, J. 186, 64

IUE observations of comet P/Halley: evolution of the ultraviolet spectrum between September 1985 and July 1986

Feldman, P.D., Festou, M.C., A'Hearn, M.F., Arpigny, C., Butterworth, P.S., Cosmovici, C.B., Danks, A.C., Gilmozzi, R., Jackson, W.M., McFadden, L.A., Patriarchi, P., Schleicher, D.G., Tozzi, G.P., Wallis, M.K., Weaver, H.A., Woods, T.N. 187, 325

Some diatomic molecules from comet P/Halley's UV spectra near spacecraft flybys

Wallis, M.K., Krishna Swamy, K.S. 187, 329

Activity of comet P/Halley on March 23-25, 1986: IUE observa-

McFadden, L.A., A'Hearn, M.F., Feldman, P.D., Roettger, E.E., Edsall, D.M., Butterworth, P.S. 187, 333

Pioneer Venus measurements of H, O, and C production in comet P/Halley near perihelion

Stewart, A.I.F. 187, 369

The atomic carbon distribution in the coma of comet P/Halley

Woods, T.N., Feldman, P.D., Dymond, K.F. 187, 380

The anomalous ultraviolet spectrum of the AM Her star H

Bonnet-Bidaud, J.M., Mouchet, M. 188, 89

Ultraviolet observations of cataclysmic variables: the IUE arch-

Verbunt, F. 188, 268; 71, 339

X-rays: binaries

Soft X-ray transients and the evolution of low mass X-ray

Hameury, J.M., King, A.R., Lasota, J.P. 171, 140

The reddening and distance of Scorpius X-1

Knude, J. 171, 289

The origin of OPO sources

Isern, J., Hernanz, M., Canal, R., Labay, J., Mochkovitch, R.

The 35 day cycle of Her X-1: quality of the clock mechanism Ögelman, H. 172, 79

A spectral study of the persistent X-ray flux from 4 U/MXB 1636-

Vacca, W.D., Sztajno, M., Lewin, W.H.G., Truemper, J., van Paradijs, J., Smith, A. 172, 143

2S0918-549: optical identification and study of a new distant low-mass X-ray binary

Chevalier, C., Ilovaisky, S.A. 172, 167

Temporal variability of the massive X-ray binary 4U 1700-37 Doll, H., Brinkmann, W. 173, 86

Disappearance of periodic X-ray minima in AM Her Priedhorsky, W., Marshall, F.J., Hearn, D.R. 173, 95

Neutron star spin evolution in wide low-mass X-ray binaries de Kool, M., van Paradijs, J. 173, 279

EXOSAT observations of the magnetic binary system E1114+

Schaaf, R., Pietsch, W., Biermann, P. 174, 357

EXO 023432-5232.3: a new 114-minute probable AM-Herculistype binary

Beuermann, K., Thomas, H.C., Giommi, P., Tagliaferri, G. 175,

High-energy gamma-ray and hard X-ray observations of Cyg

Hermsen, W., Bennett, K., Bloemen, J.B.G.M., Buccheri, R., Jansen, F.A., Mastichiadis, A., Mayer-Hasselwander, H.A., Ozel, M.E., Pollock, A.M.T., Strong, A.W. 175, 141

EXOSAT observations of the 1983 outburst of the Rapid Burster: a new mode of behaviour

Barr, P., White, N.E., Haberl, F., Stella, L., Pollard, G., Gottwald, M., Parmar, A.N. 176, 69

Numerical studies of wind accretion

Anzer, U., Börner, G., Monaghan, J.J. 176, 235

X-ray emission from the symbiotic system CH Cygni Leahy, D.A., Taylor, A.R. 176, 262

An optical study of the Be/X-ray transient HDE 245770/A 0535+

Janot-Pacheco, E., Motch, C., Mouchet, M. 177, 91

Are the galactic-bulge X-ray sources magnetized? Kundt, W., Özel, M.E., Ercan, E.N. 177, 163

The light curves of low-mass X-ray binaries

Frank, J., King, A.R., Lasota, J.-P. 178, 137

CCD photometry of AC 211/X 2127+119: The 8.5 h period of the X-ray binary in the M 15 globular cluster

Ilovaisky, S.A., Aurière, M., Chevalier, C., Koch-Miramond, L., Cordoni, J.P., Angebault, L.P. 179, L1

Soft X-ray transients in quiescence: observations of Aql X-1 and Cen X-4

van Paradijs, J., Verbunt, F., Shafer, R.A., Arnaud, K.A. 182, 47

The optical counterpart of the X-ray transient EXO 2030 + 375 Motch, C., Janot-Pacheco, E. 182, L55

Disk formation at the magnetosphere of wind-fed pulsars: application to Vela X-1

Börner, G., Hayakawa, S., Nagase, F., Anzer, U. 182, 63

Discovery of soft X-ray oscillations in VW Hydri van der Woerd, H., Heise, J., Paerels, F., Beuermann, K., van der Klis, M., Motch, C., van Paradijs, J. 182, 219

X-ray and UV observations of ω Centauri with EXOSAT Koch-Miramond, L., Aurière, M. 183, 1

Doppler-effect modulation of the observed radiation flux from ultracompact binary stars

Shakura, N.I., Postnov, K.A. 183, L21

An evolutionary scenario for the black hole binary A0620-00 de Kool, M., van den Heuvel, E.P.J., Pylyser, E. 183, 47

Disc accretion by magnetized neutron stars: a reassessment of the torque

Wang, Y.-M. 183, 257

Evolution of stellar binaries formed by tidal capture Ray, A., Kembhavi, A.K., Antia, H.M. 184, 164

The relation between optical and X-ray flux variations of the black-hole candidate LMC X-3

van Paradijs, J., van der Klis, M., Augusteijn, T., Charles, P., Corbet, R.H.D., Ilovaisky, S., Maraschi, L., Motch, C., Pakull, M., Smale, A.P., Treves, A., van Amerongen, S. 184, 201

An evolutionary scenario for the formation of highly eccentric Be/X-ray binaries

Habets, G.M.H.J. 184, 209

CCD photometry of V 926 Sco, the optical counterpart of the Xray burst source 4U/MXB 1735-44

van Amerongen, S., Pedersen, H., van Paradijs, J. 185, 147

Hard spectral components in soft X-ray transients King, A.R., Lasota, J.P. 185, 155

Five-colour (*UBVRI*) polarimetry of H 0139-68 = BL Hydri Piirola, V., Reiz, A., Coyne, G.V. 185, 189

Neutron star precession and the dynamics of the superfluid inte-

Alpar, A., Ögelman, H. 185, 196

Simultaneous five-colour (UBVRI) polarimetry of EF Eri Piirola, V., Reiz, A., Coyne, G.V. 186, 120

A classification of fast quasi-periodic X-ray oscillators: Is 6 Hz a fundamental frequency?

Hasinger, G. 186, 153

The influence of external magnetic fields on the structure of thin accretion disks

Anzer, U., Börner, G., Meyer-Hofmeister, E. 188, 85

The anomalous ultraviolet spectrum of the AM Her star H 0538+608

Bonnet-Bidaud, J.M., Mouchet, M. 188, 89

Fast transient X-rays from flare stars and RS CVn binaries Rao, A.R., Vahia, M.N. 188, 109

X-rays: bursts

Why is the rapid burster different from all other galactic-bulge X-ray sources?

Milgrom, M. 172, L1

Constraints on the mass-radius relation for the neutron star in the X-ray burst source 4U/MXB 1820-30 located in the globular cluster NGC 6624

van Paradijs, J., Lewin, W.H.G. 172, L20

A spectral study of the persistent X-ray flux from $4\,U/MXB\,1636$ – $53\,$

Vacca, W.D., Sztajno, M., Lewin, W.H.G., Truemper, J., van Paradijs, J., Smith, A. 172, 143

Neutrino-antineutrino annihilation around a collapsar Berezinsky, V.S., Prilutsky, O.F. 175, 309

EXOSAT observations of the 1983 outburst of the Rapid Burster: a new mode of behaviour

Barr, P., White, N.E., Haberl, F., Stella, L., Pollard, G., Gottwald, M., Parmar, A.N. 176, 69

The formation of radiation-driven winds in bursting neutron stars: non-LTE models

Yahel, R.Z., Brinkmann, W., Braun, A. 176, 223

Are the galactic-bulge X-ray sources magnetized?

Kundt, W., Özel, M.E., Ercan, E.N. 177, 163

Status of the Perseus optical flasher

Rao, A.R., Vahia, M.N. 188, 109

Corso, G.J., Ringwald, F.A., Harris, R.W. 183, L9

CCD photometry of V 926 Sco, the optical counterpart of the X-ray burst source 4U/MXB 1735-44

van Amerongen, S., Pedersen, H., van Paradijs, J. 185, 147 Fast transient X-rays from flare stars and RS CVn binaries

X-rays: general

New evidence at X-ray and COS-B γ -ray frequencies for non-thermal phenomena in Wolf-Rayet stars

Pollock A.M.T. 171, 135

EXOSAT observations of a broad absorption-line quasar: PHL 5200

Singh, K.P., Westergaard, N.J., Schnopper, H.W. 172, L11 Solar-type giants: new X-ray detections from EXOSAT observations

Gondoin, P., Mangeney, A., Praderie, F. 174, 187

The central X-ray source in M 33

Gottwald, M., Pietsch, W., Hasinger, G. 175, 45

EXOSAT observations of the 1983 outburst of the Rapid Burster: a new mode of behaviour

Barr, P., White, N.E., Haberl, F., Stella, L., Pollard, G., Gottwald, M., Parmar, A.N. 176, 69

The radio to X-ray continuum emission of the quasar 3C 273 and its temporal variations

Courvoisier, T.J.-L., Turner, M.J.L., Robson, E.I., Gear, W.K., Staubert, R., Blecha, A., Bouchet, P., Falomo, P., Valtonen, M., Teräsranta, H. 176, 197

A search for X-ray emission from a nearby pulsar: PSR 1929+

Alpar, A., Brinkmann, W., Kızıloğlu, Ü., Ögelman, H., Pines, D. 177, 101

EXOSAT observations of X-rays from classical novae during the outburs; stage

Ögelman, H., Krautter, J., Beuermann, K. 177, 110

Hollow H_{II} regions. II. Mechanism for wind energy dissipation and diffuse X-ray emission

Dorland, H., Montmerle, T. 177, 243

X-ray/optical brightness trends in 3C 66A

Maccagni, D., Garilli, B., Schild, R., Tarenghi, M. 178, 21 Electron-positron bremsstrahlung in thermal plasmas: simple analytical fits

Haug, E. 178, 292

Rotational modulation and flares on RS CVn and BY Dra-type stars. V. EXOSAT and IUE observations of a flare on EQ Pegasi

Haisch, B.M., Butler, C.J., Doyle, J.G., Rodono, M. 181, 96 Hard X-ray observations of the quasar 3C273

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V., Venkatesan, D. 182, L1

Soft X-ray observations of the radio pulsar PSR 1055-52

Brinkmann, W., Ögelman, H. 182, 71

X-ray and UV observations of ω Centauri with EXOSAT

Koch-Miramond, L., Aurière, M. 183, 1

The 67-min X-ray period of EX Hydrae observed with the EIN-STEIN observatory

Heise, J., Mewe, R., Kruszewski, A., Chlebowski, T. 183, 73 The inverse Compton test for a large sample of compact radio sources

Biermann, P.L., Kühr, H., Snyder, W.A., Zensus, J.A. 185, 9 EUV photometry of DA white dwarfs with EXOSAT

Jordan, S., Koester, D., Wulf-Mathies, C., Brunner, H. 185,

Soft X-ray imaging observations of the 39 millisecond pulsar PSR 1951+32

Ögelman, H., Buccheri, R. 186, L17

Erratum: Hard X-ray observations of the quasar 3C 273

Damle, S.V., Kunte, P.K., Naranan, S., Sreekantan, B.V., Venkatesan, D. 186, L20

X-rays: spectroscopy

A spectral study of the persistent X-ray flux from 4 U/MXB 1636-53

Vacca, W.D., Sztajno, M., Lewin, W.H.G., Truemper, J., van Paradijs, J., Smith, A. 172, 143

Cyclotron line formation in a hot plasma including Compton cooling

Riffert, H. 172, 241

A comparison of coronal X-ray emission observed with the Einstein and EXOSAT observatories

Schmitt, J.H.M.M., Pallavicini, R., Monsignori-Fossi, B.C., Harnden, F.R., Jr. 179, 193

X-ray and UV observations of ω Centauri with EXOSAT Koch-Miramond, L., Aurière, M. 183, 1

The 67-min X-ray period of EX Hydrae observed with the EIN-STEIN observatory

Heise, J., Mewe, R., Kruszewski, A., Chlebowski, T. 183, 73 Hot ions observed by the Giotto ion mass spectrometer at the comet P/Halley contact surface

Goldstein, R., Young, D.T., Balsiger, H., Buehler, F., Goldstein, B.E., Neugebauer, M., Rosenbauer, H., Schwenn, R., Shelley, E.G. 187, 220